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ABSTRACT

The document contains the final report of a model educational program for handicapped preschoolers in Preston County (West Virginia). Section I offers the history of the project and background information on the geographic location, operating characteristics, children served, and staffing pattern. Section II outlines the original project objectives while section III covers the objectives accomplished in the following areas: services for children, services for parents, staff development, demonstration/dissemination, and administration/management/evaluation. A final section reviews findings and recommendations. It is noted that data show statistically significant growth in most areas assessed; that products revised and/or developed include a revision of the West Virginia Assessment and Tracking System (WVAATS), curricular materials, and a measure of parental involvement; and that standard program efficiency information would be useful to distribute among project directors. Appendixes make up half the document and include a copy of the WVAATS; sample curriculums in visual, auditory, and tactile responsiveness; a parent needs assessment survey form and a parent/family involvement index; an outline of a model for parental involvement in the special education program; the text of a slide-tape show; sample newspaper articles; and a paper on conrolled evaluation of instruction methods. (SW)

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U. S. Department of Education

Special Education Programs

HANDICAPPED CHILDREN'S EARLY EDUCATION PROGRAM

Grant #G007900512

FINAL REPORT

A MODEL PUBLIC SCHOOL, DATA-BASED EARLY EDUCATION PROGRAM FOR RURAL ANDICAPPED CHILDREN

Written by:

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and

Submitted by:

The West Virginia Board of Regents
on behalf of the
College of Human Resources and Education
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November, 1982

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Dedication

To Marilyn Frank and Betsy Shamblin, two energetic, thoroughly dependable young women, and to the children they served: Andrea, Johnnie, Debbie, Stacy, Dee Dee, Kathy, Matthew, Lora, Brandon, Michael, April, and Passion.

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A great many people participated in this project's success, but perhaps none gave more of themselves than its coordinator and its teacher during the second two years, Marilyn R. Frank and Elizabeth S. Shamblin, respectively. With it from start to finish and providing continuity as well as tremendous day-to-day consistency was our teaching assistant Theresa Harsh Opel. Jackie Bucklew served as a second teaching assistant during our third year and similarly distinguished herself in that role.

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Numerous graduate students from various disciplines developed higher levels of skills in working with handicapped children via the project. More than learning themselves, though, they served the children and the project in important and often unappreciated ways. Among them, Amy Ginsberg, Vicky Wolfe, David DeLawyer, and Wayne Henshaw deserve special commendation for the quality of their service. David and Vicky have continued their contribution, spending long hours pouring over thousands of pieces of data

collected during the past few years.

Our evaluative efforts were greatly facilitated by Jo Ann Marchant, then of the Richmond, VA public schools, and by Signe Langschultz and Beth Kooiman, teachers who graciously consented to spend two years replicating our procedures and reporting their data twice a week over the phone. They were simply amazing in their determinism and consistency.

Molly Watson of the Training Resource Center at Colin Anderson Center was indispensable in our staff training efforts. She had a major part in the training of all of our staff and the Richmond teachers over the three years of the project, and has just participated in training the new teacher hired to continue the program past its model demonstration period.

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Finally, the materials developed over the three years, as well as the I.E.P.s, parent newsletters, and monthly progress reports would not have been possible without the capable support of our secretarial staff, which at one time or another included Deborah Windom, Tuesday Merico, Dawn Bee, and Betty Cobun. The production of this report was the result of the phenomenal keyboard and word processing skill of Michael L. Murphy, whose patience and high degree of professionalism will always be remembered.

ABSTRACT

The accomplishments of Grant #G007900512 awarded by the Handicapped Children's Early Education Program of the United States Department of Education to the University Affiliated Center at West Virginia University are reported. Twelve different children with multiple handicaps were served in the model classroom in Preston County, WV during the July 1, 1979 - August 31, 1982 funding period. An additional 16 children from two classes of the Richmond, VA schools which constituted partial replication sites also received services. $256,856. in federal funds were expended in developing and evaluating the model.

The project developed a data-based, integrated early education program for handicapped preschoolers that has now been taken over by the host L.E.A. and continued essentially unchanged. In addition, three volumes of curricular materials containing 518 objectives and as many daily lesson plans were written in the areas of auditory, visual, and tactile responsiveness. A major summative assessment measure, the West Virginia Assessment and Tracking System was revised, and products for (1) the direct observational monitoring of staff teaching performance, (2) assessing degree and type of parent involvement, and (3) assessing parent satisfaction were developed.

Finally, a multiple-baseline across areas within children design showed the effectiveness of our instructional procedures and provided evidence that significant pre/post changes on two summative measures was in fact due to experiencing these procedures. These results were established in Year II and

replicated in Year III. In addition, the two Richmond classes (for multiply handicapped primary children) replicated our results with slightly older children receiving different areas of instructional emphasis.

I. Introduction

This is the final report for Grant #G007900512 awarded by the Handicapped Children's Early Education Program of Special Education Programs, Office of Special Education and Rehabilitation Services, U.S. Department of Education to West Virginia University. The project funded by this grant involved the development of a model educational program for children between 36 and 72 months of age in Preston County, WV. The period covered by the grant was July 1, 1979 - June 30, 1982, with a no-cost extension to August 31, 1982. Total federal funds expended for the three years were $256,856.

What follows is a brief historical account of the project, a listing of its original objectives, and a summary of its accomplishments. Objectives and accomplishments are presented for each of the five program components separately. Most of the formal data evaluating benefits to the children served are presented in the section on administration, management, and evaluation.

Many of the products developed during the project are presented as appendices to this report. Some of them (especially the curricular materials) were simply too extensive to include herein, so only representative portions appear in the Appendices.

A. History of the Project

There were two impeti for the original grant proposal written in October, 1978 by John D. Cone: (1) a request from Preston County for assistance in developing a preschool program that would complete a gap in services between an already existing infant stimulation program and the county's special education programs for

school-aged children, and (2) a need to test a comprehensive educational service delivery system (The West Virginia System) developed earlier by Cone and his associates in collaboration with the Preston County Schools, the University Affiliated Center (UAC) for Developmental Disabilities at West Virginia University, (WVU) and the West Virginia State Department of Health.

Upon receipt of funding the program began operation July 1, 1979, and was administered through the UAC. Its staff was physically located in offices of the Department of Psychology at WVU and at the Preston County Early Childhood Education Center in Kingwood, WV. Soon after its initiation the program became known as Project C.H.A.R.T., for Children with Handicaps in Accountable Rural Teaching. Throughout its three years of model demonstration funding the project was consistently data-based. It was also behavioral in orientation and, as will be shown later, it was rather strenuously evaluated.

B. Geographic Location and Area Served

The project was designed to serve a rural area, and was located on "the farm" just outside Kingwood, WV for its entire three years. Kingwood, with a population of 2,877, is the county seat and largest town in Preston County, an area of some 653.8 square miles situated in the mountainous north central region of West Virginia. The location of the project classroom in Kingwood put it a treacherous 26 miles from the West Virginia University campus in Morgantown, a distance often impassible in winter. (Preston County had more snow than Buffalo, NY during the infamous winter of 1977!)

C. Operating Conditions

Initially housed in a 50' X 12' trailer, the second and third years saw its physical integration with two early childhood classes in a remodeled calving barn several hundred yards away. Throughout all three years there was a consistent emphasis on integration of the six to eight C.H.A.R.T. children with nonhandicapped preschoolers in the early childhood classes. The first year this was limited to music and lunch periods with C.H.A.R.T. students being transported to "the barn" for these each day. After the class began sharing the same physical space as the early childhood classes integration increased considerably, with handicapped children participating in appropriate pre-academic activities in addition to the non-academic ones of Year I. The children attended school five and one half hours per day, Monday through Thursday. Home visits, data summarization, and planning occurred on Fridays. Six-week summer programs were run following Years I and II.

D. Children Served

Designed to serve between six and eight students a year, the project enrolled a total of twelve different children during its three years of model demonstration funding. A total of 51 children was screened to produce this number. Birth dates of these children ranged from 7/7/73 to 3/15/79. All twelve were multiply handicapped, and all but one retarded. In addition, services were provided by project staff to 50 nonhandicapped students in the early childhood classes with which ours was integrated during Years II and III. These services were primarily in "high risk" areas (e.g., fine motor, receptive and expressive language) where their regular teachers were concerned about

possible slight lags in development.

Services were also provided to 16 different children in the two classes of the Undifferentiated Multihandicapped Primary Child program that served as replication sites for our controlled evaluation. These children were somewhat older than ours ($\bar{X}$ age = 5.7; range = 5-8) and somewhat less severely handicapped (all but one were retarded, with the majority having IQ scores between 50-70).

E. Staffing Pattern

The project's staffing pattern, presented in Fig. 8, consisted of the principal investigator (.34 FTE). a coordinator (1.0 FTE), a classroom teacher (1.0 FTE), an aide (1.0 FTE), a secretary (1.0 FTE), and two graduate assistants (.25 FTE). In addition, small amounts of staff time were contributed locally and Preston County provided a second teacher's aide.

The project experienced some staff turnover, limited primarily to the first year. During the funding period there were three different teachers and two coordinators. The same teacher and coordinator served for all of Years II and III, however. The initial teacher's aide and the principal investigator remained the same all three years, as did the coordinator of special education and the director of early childhood programming in Preston County.

II. Original Project Objectives

A. Services for children. The principal objective of this program component was to develop a model public school,

data-based educational program for severely multiply handicapped children between the chronological ages of 36 - 72 months in a sparsely populated rural setting. To accomplish this the following specific objectives were developed.

1. To adapt existing (or develop new) curriculum correlated assessment procedures for use by teachers in establishing appropriate long term goals and instructional objectives for these children;

2. To integrate these assessment procedures with ones used in programs that a child might enter prior to and upon leaving the proposed one;

3. To coordinate assessment and placement activities with the overall special education service delivery process of the State Department of Education;

4. To develop I.E.P.s for each student that were consistent with the service delivery process and with I.E.P.s in use in existing programming within the school system;

5. To provide model ways of bringing together and organizing existing curriculum materials from disparate sources;

6. To evaluate objectives sequences for uniformity of difficulty ad relevance to target skills; and

7. To evaluate various direct teaching strategies for teaching particular objectives.

B. Services for parents. The principal objective of this program component was to involve parents closely in the education of their child via coordinated activities between the school system and the community mental health center serving the

region. To accomplish this the following specific objectives were developed.

1. To teach parents to make effective use of community resources;

2. To involve parents in constructive, supplementary education/training activities with their child at home;

3. To train parents to discriminate behaviors of their own that foster independence or dependence in their child.

C. Staff development. The principal objective of this program component was to ensure that classroom personnel are skilled in all aspects of model program operation. To accomplish this, procedures were needed to ensure high levels of performance in each of the following areas:

1. educational assessment of individual ch[illegible]n;
2. target behavior selection;
3. writing behavioral objectives
4. writing I.E.P.s;
5. selecting training programs;
6. designing and writing training programs;
7. direct instruction of handicapped children;
8. monitoring student progress;
9. evaluating the effects of instructional procedures;
10. arranging instructional resources;
11. arranging instructional environments;
12. interacting with other classroom personnel;
13. interacting with related service providers;
14. managing an effective parent/family involvement program;

and

15. managing the special medical needs of children.

D. Demonstration/dissemination. The principal objective of this program component was to package and disseminate various components of the model to educators, other professionals; parents, and legislators. To accomplish this the following specific objectives were developed.

1. To assure immediate statewide visibility of the project through the creation of an advisory council whose members would include staff of the State Department of Education, Department of Health, West Virginia Advocates for the Developmentally Disabled, and various advocacy groups such as the Association for Retarded Citizens, United Cerebral Palsy Association, and the Association for Autistic and Autistic-like Persons;

2. To demonstrate efficient organization of a classroom's physical space;

3. To demonstrate efficient and effective scheduling of educational activities during the school day;

4. To show teachers and aides how they could develop materials when none is available;

5. To demonstrate the value of uniform progess-monitoring procedures that provide trial-by-trial performance data in real calendar time;

6. To demonstrate the value of uniformity in assessment, placement, and tracking procedures both within and between eduational programs;

7. To demonstrate effective ways of interacting with parents

in both school and home settings, and with other professionals who visit the home;

8. To present project descriptions at state, regional, and national professional meetings;

9. To write and publish papers in professional journals;

10. To develop and present a slide tape show of the program to various civic groups; and

11. To seek publication of descriptions of the program in various newspapers throughout the state and region.

E. Administration/management/evaluation. The principal objective of this program component was to plan, implement, and evaluate a preschool handicapped children's program closely coordinated with existing services in order to complete a continuum extending from genetics counseling preconception to sheltered living and employment opportunities following public school eligibility. To accomplish this the following specific objectives were developed:

1. To prepare a written statement of the overall program philosophy;

2. To establish project goals, objectives, and timelines that are consistent with the program philosophy;

3. To construct a chart showing the project's organizational structure;

4. To develop written statements defining specific interfacing procedures with other agencies;

5. To establish procedures and dates for regular project review;

6. To obtain written clearance of model classroom procedures from the University's Human Subjects Committee;

7. To hire and maintain appropriate staff;

8. To work closely with the L.E.A. to secure and maintain appropriate physical space, equipment, supplies, and transportation of students to and from the program;

9. To develop a written, comprehensive program evaluation plan, submit this to review and critique, revise it and implement it;

10. To design and implement a filing system for each program component;

11. To prepare a continuation proposal for B.E.H.;

12. To prepare reports and respond to various information requests from TADS;

13. To conduct regular meetings of the project's advisory council; and

14. To meet periodically with the S.I.G. coordinator to keep mutually informed about programming for handicapped children throughout the state.

III. Objectives Accomplished

A. Services for Children

1. Adapting existing assessment procedures. The major summative assessment measure for the project was the West Virginia Assessment and Tracking System (WVAATS, Cone, 1981; see Appendix A). The WVAATS is a curriculum-referenced measure of adaptive behavior in the 20 areas of functioning listed

in Table 1.

Table 1

Areas Assessed by the West Virginia Assessment and Tracking System

SENSORY ZONE	
A. Tactile Responsiveness	
B. Auditory Responsiveness	
C. Visual Responsiveness	
PRIMARY ZONE	**SECONDARY ZONE**
D. Gross Motor	M. Recreation and Leisure
E. Eating	N. Writing
F. Fine Motor	O. Domestic Behavior
G. Toileting	P. Reading
H. Dressing	Q. Vocational
I. Social Interaction	R. Time
J. Washing-Grooming	S. Numbers
K. Receptive Language	T. Money
L. Expressive Language	

Originally developed for school-age severely handicapped students, the measure was revised during Year II of the project to make it suitable for a broader range of chronological ages, including preschool children. In the revision special attention was given the three areas of the Sensory Zone (auditory, tactile, and visual responsiveness) but, overall, more than 50% of the 568 items were

rewritten for the present version.

The WVAATS can be administered in any one of three ways: (a) by interviewing someone familiar with the student; (b) by direct observation, and (c) by having someone familiar with both the student and the assessment device complete it directly. The first and third modes have been the most frequently used, and are the most time efficient. Correspondence among data produced by each of the three modes has been investigated and found to be satisfactory. During the project data were collected (for twelve WVAATS areas) on five children served in Year I via direct observation of their behavior at school. These data were compared with independent assessments provided by the teacher and by the child's parents when interviewed by the project coordinator. The results of these comparisons are presented in Table 2.

Table 2

Comparisons of Scores from Direct Observations, Teacher, and Parent for Twelve *WVAATS* Areas

Area	Direct vs. Teacher*						Direct vs. Parent						Teacher vs. Parent					
Student →	1	2	3	4	5	$\bar{X}$	1	2	3	4	5	$\bar{X}$	1	2	3	4	5	$\bar{X}$
Tactile Resp.	1.00	.82	.67	.56	.85	.78	.85	.93	.93	.98	.53	.84	.85	.76	.71	.57	.45	.67
Auditory Resp.	.91	.97	.99	.85	.94	.93	.72	.81	1.00	.83	.83	.84	.79	.79	.99	.71	.88	.83
Visual Resp.	.84	.67	.84	.90	.82	.81	.93	.60	.67	.82	.48	.70	.90	.90	.79	.90	.59	.82
Gross Motor	.99	.83	.97	.78	.97	.91	.92	.89	.94	.89	1.00	.93	.90	.93	.97	.88	.97	.93
Fine Motor	.87	.88	.96	.87	.98	.91	.97	.97	.88	.89	.98	.94	.90	.90	.92	.77	1.00	.90
Toileting	.95	.90	1.00	.79	1.00	.93	.93	.85	.94	.80	1.00	.90	.89	.95	.94	.98	1.00	.95
Eating	1.00	1.00	.96	.96	1.00	.98	.94	.95	.93	.98	.94	.95	.94	.95	.97	.94	.94	.95
Dressing	.92	.88	.84	.74	.92	.86	.97	.89	.92	1.00	.91	.94	.94	.99	.77	.74	.99	.89
Washing/Groom	.82	.86	.90	.96	.91	.89	1.00	.91	.97	.98	.75	.92	.82	.95	.93	.98	.82	.90
Social Interact.	.89	.92	.78	.85	.80	.85	.99	1.00	.91	.92	.86	.94	.91	.92	.71	.92	.93	.88
Receptive Lang.	.66	.79	.74	.75	.67	.72	.66	.61	.77	.96	.70	.74	1.00	.77	.96	.78	.96	.89
Expressive Lang.	.84	.89	.88	.86	.85	.86	.90	.62	.92	1.00	.65	.82	.94	.56	.81	.87	.76	.79
Mean	.89	.87	.88	.82	.89		.90	.84	.90	.92	.80		.82	.86	.87	.84	.86	
Range	.66-1.00	.79-1.00	.67-1.00	.56-.96	.67-1.00		.66-1.00	.60-1.00	.67-1.00	.82-1.00	.48-1.00		.79-1.00	.56-.99	.71-.99	.57-.98	.45-1.00	

*All comparisons are based on dividing the smaller area score by the larger.

From the data in Table 2 it can be seen that the WVAATS scores for each of the twelve areas are highly comparable whether

produced via direct observation, parent interview, or teacher report. The higher fidelity of the direct observation data can establish them as a criterion against which to validate the other modes. The high degree of correspondence between teacher and parent data and those obtained directly by trained observers provides some assurance that teacher and parent data have some degree of accuracy. It is gratifying to note in Table 2 that the accuracy of teacher and parent report did not vary greatly across the five children nor across the twelve areas evaluated. These data, though from a rather small sample, supplement those collected on the previous version of the WVAATS from N = 59 severely handicapped, institutionalized children. In that analysis, aides' reports of student behavior were compared with direct observations by trained observers for eight of the areas of the Primary Zone. The mean Pearson product-moment correlation between aide reported and directly observed area scores was .80, ranging from a low of .68 for eating to a high of .90 for both gross motor and dressing.

It would appear that the WVAATS is reliable and that its results do not depend on which of the three modes one uses to assess the student. These are important findings, because the WVAATS was used extensively in the summative evaluation of project children, as later sections will show. It should also be noted that these data are limited to areas of the Sensory and Primary Zones, and may not represent the reliability and accuracy of the eight areas of the Secondary Zone. However, since the Secondary Zone areas were of minimal relevance to our preschool children, we opted not to spend project resources pursuing their

evaluation.

In the C.H.A.R.T. program the WVAATS was used to establish priority training areas for the childrens' I.E.P.s. Information obtained from parent interviews conducted by the teacher or the project coordinator was used to complete the WVAATS profiles and these were introduced at the Placement Advisory Committee (PAC) meeting at which I.E.P.s were developed and appppropriate placements were decided. Most frequently, those in attendance at the PAC meeting agreed that the lowest functioning areas in the Primary Zone should be the highest priorities in a child's educational program.

Thus, the WVAATS served to identify general areas in which instruction was needed. When a child was placed in our class we then performed an informal item analysis to see just where s/he was functioning in each priority area. Because the WVAATS is referenced to the curriculum of The West Virginia System, it is possible to go from such an analysis to sub-areas within the 20 curricular areas and complete our assessment of the student via direct observation of his/her performance in those sub-areas. From direct observation it is possible to establish levels of present functioning and specific instructional objectives. The details of moving from broad band assessment provided by the WVAATS to precise assessment via direct observation using objectives of the curriculum can be found in the introduction to the Visual Responsiveness binder presented in Appendix B. It is sufficient to note here that the development of these procedures fully satisfied the requirements of the first project objective in the Services for Children component.

2. Integrating assessment procedures with other programs. It was our hope that the continuum of services completed by Project C.H.A.R.T. would be enhanced by carefully interdigitating our assessment procedures with those of both sending and receiving programs. At the extreme height of optimism (and naivete) we even imagined all programs using a common instrument, thus facilitating communication between them and providing for the efficient movement of children from one program to another.

What we accomplished was something less. Through inservice presentations and one-to-one consultation between project staff and other teachers of the district we were able to explain our procedures and major assessment tools so that receiving teachers had a good idea of the behavioral repertoire of any child leaving our program and joining theirs. This enabled the receiving teacher to understand the child's I.E.P. developed in our program and to produce one of her own that built directly on the progress made to date. The few children who did transfer to less restrictive placements then continued in priority training areas with a minimum of time lost.

At a more formal level we affected the integration of our assessment procedures with those of other classes by cross-referencing the objectives in our devices to those in theirs. The logic here was that since it is unlikely that all teachers will ever be satisfied to use a common assessment tool, it might be possible to perform a translation of sorts, so that performance on one measure might be equated to performance on others. This translation function is provided by the scope,

sequence, and correspondence charts of the curriculum binders (see Appendix B for an example), and represented in Table 3. It is possible for a teacher using one of the assessment instruments included in the charts to establish approximately where a student would be functioning on it by looking at his/her WVAATS performance and finding the item in her instrument that corresponds with that performance. The teacher might then confirm the correspondence by assessing the student in the general vicinity of that item on her instrument. This would obviate the need for lengthy assessment before the student could be started in programs in the receiving classroom. It would also serve reasonably well to facilitate communication and continuity between programs without requiring the use of a common summative measure.

3. Coordinating the model with the State's service delivery process. Our assessment and placement procedures were designed to integrate smoothly with those of the S.E.A. and host L.E.A. during the first year of the project. The comparability of our model procedures and those of the Preston County Schools can be seen by comparing the flowcharts presented in Figures 1 and 2. The adequacy of our procedural integration was further supported by a positive review by officials of the S.E.A. who conducted a complete onsite review of the L.E.A.'s compliance with P.L. 94-142 regulations during the project's second year.

4. Producing an L.E.A.-compatible I.E.P. format. The I.E.P. (see Figure 3) form developed in Year I and refined in

Table 3
Scope, Sequence, and Correspondence Charts:
Visual Responsiveness Curriculum Area

Shows Normal Reflexes / WVS Objective Number	VISUAL RESPONSIVENESS Objectives in the WEST VIRGINIA SYSTEM	Behavioral Characteristics Progression - 1977 (BCP)	Carolina Curriculum for Handicapped Infants - 1976 (CCHI)	Developmental Programming for Infants and Young Children 3 - 1977 (DPIYC)	Education for Multihandicapped Infants Assessment Scale - 1975 Curriculum Pool Materials - 1977 (EMI)	GOAL Program: Language Development - 1972 (GOAL)	COMP Curriculum Guide - 1077 (HICOMP)
Reflex - 1	Pupils contract in response to flash-light beam.						
Reflex - 2	Blinks eyes or turns head away from object moving rapidly toward eyes.						
Reflex - 3	Moves head or eyes toward light, or closes eyes, when light turned on.	14-1.0					O-1-3.5 P-1-3.1
Fixates on Objects							
Fixates - 1	Looks at object 12 inches in front of face.		6.b 6.c	P/FM-7	FM-1.C FM-2.A FM-4.C		P-1-1.20 P-1-1.21 P-1-1.3
Fixates - 2	Looks for 3 seconds at object 12 inches in front of face.	14-12.0	3.a				P-1-1.20 O-1-3.6 P-1-1.11 P-1-8.1
Fixates - 3	Looks for 3 seconds object 12 inches in front of chest.						O-1-3.6 P-1-1.11 P-1-8.1

Table 3 (cont.)

Shows Normal Reflexes / WVS Objective Number	VISUAL RESPONSIVENESS Objectives in the WEST VIRGINIA SYSTEM	Assessment & Curricular: Infant Learning Program - 1971 (ILP)	Portage Guide to Early Education - 1976 (Portage)		Assessment 17: Bayley Scales of Infant Development 1969 (Bayley)	Callier - Azusa Scale - 1977 (CA)	Comprehensive Developmental Evaluation Chart - 1975
Reflex - 1						V-0	
Reflex - 2						V-4 V-1	V-16
Reflex - 3					Me-20	V-3A V-1	
Fixates on Objects							
Fixates - 1			IS-24		Me-5	V-2A V-5A	R-10 CS-8 V-2
Fixates - 2					Me-7 Me-32	V-2A V-5A	R-10 CS-8 V-6
Fixates - 3					Me-7 Me-32	V-2A V-5A	R-10 CS-8 V-6

Table 3 (cont.)

Assessment

Shows Normal Reflexes / WVS Objective Number	VISUAL RESPONSIVENESS Objectives in the WEST VIRGINIA SYSTEM	Deaf-Blind Multihandicapped Assessment - 1975 (DBMHA)	Developmental Guidelines - unpub. (DG)	The Down's Syndrome Performance Inventory - 1976 (DSPI)	Early Intervention Developmental Profile - 1975 (EIDP)	The Marshalltown Behavioral Developmental Profile - 1975 (MP)	Oregon Project for visually Impaired and Blind Preschoo
Reflex - 1							
Reflex - 2			FM-33				
Reflex - 3			FM-10				
Fixates on Objects							
Fixates - 1			FM-1 FM-28	II-A1 - Level 1	FM/PM - 154		
Fixates - 2			FM-2 FM-19 FM-45		FM/PM - 154		
Fixates - 3			FM-2 FM-19 FM-29 FM-45	II-A7 - Level 1			

Figure 1

Preston County Schools:

Procedure and Time Line for Referrals

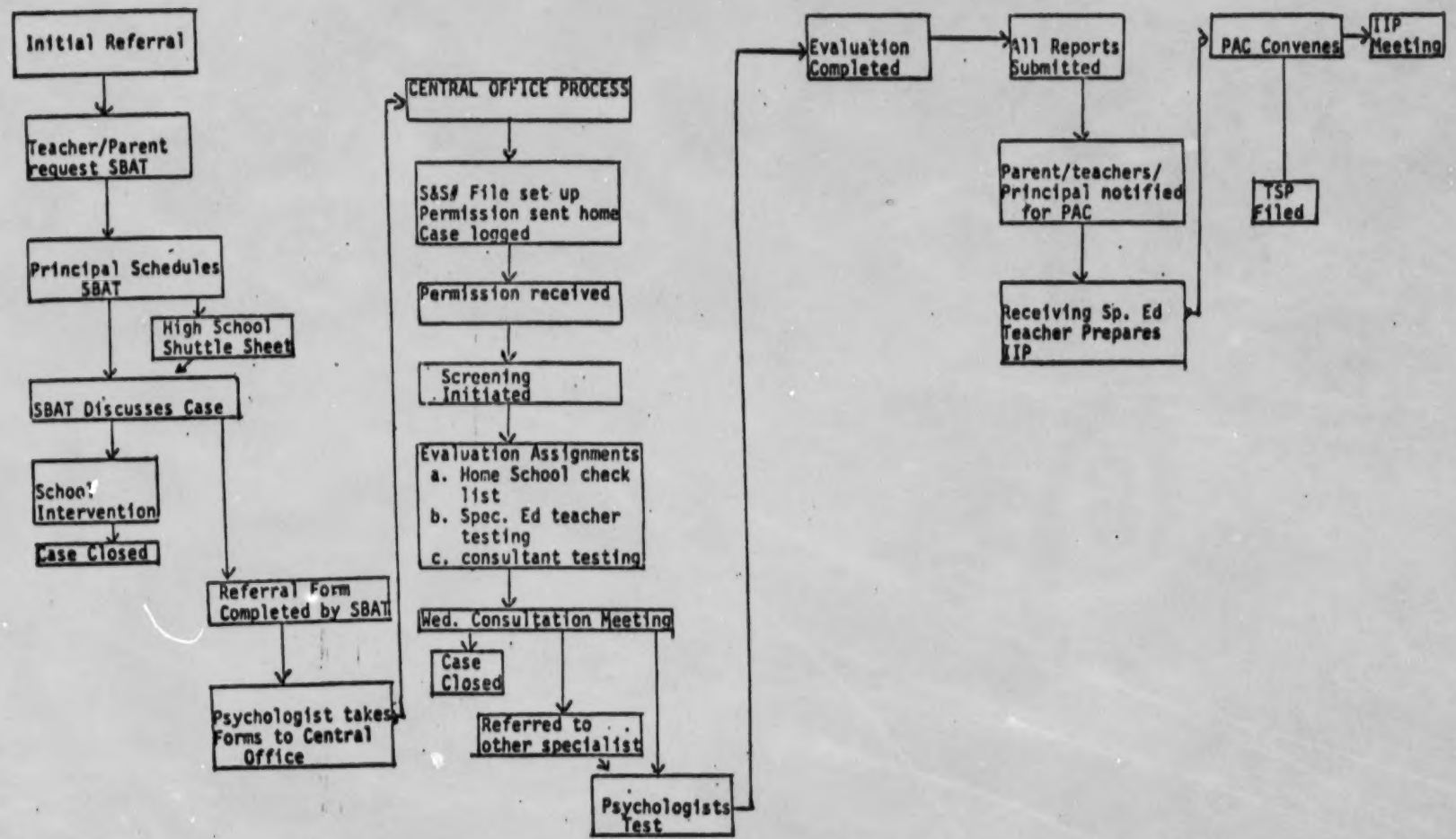


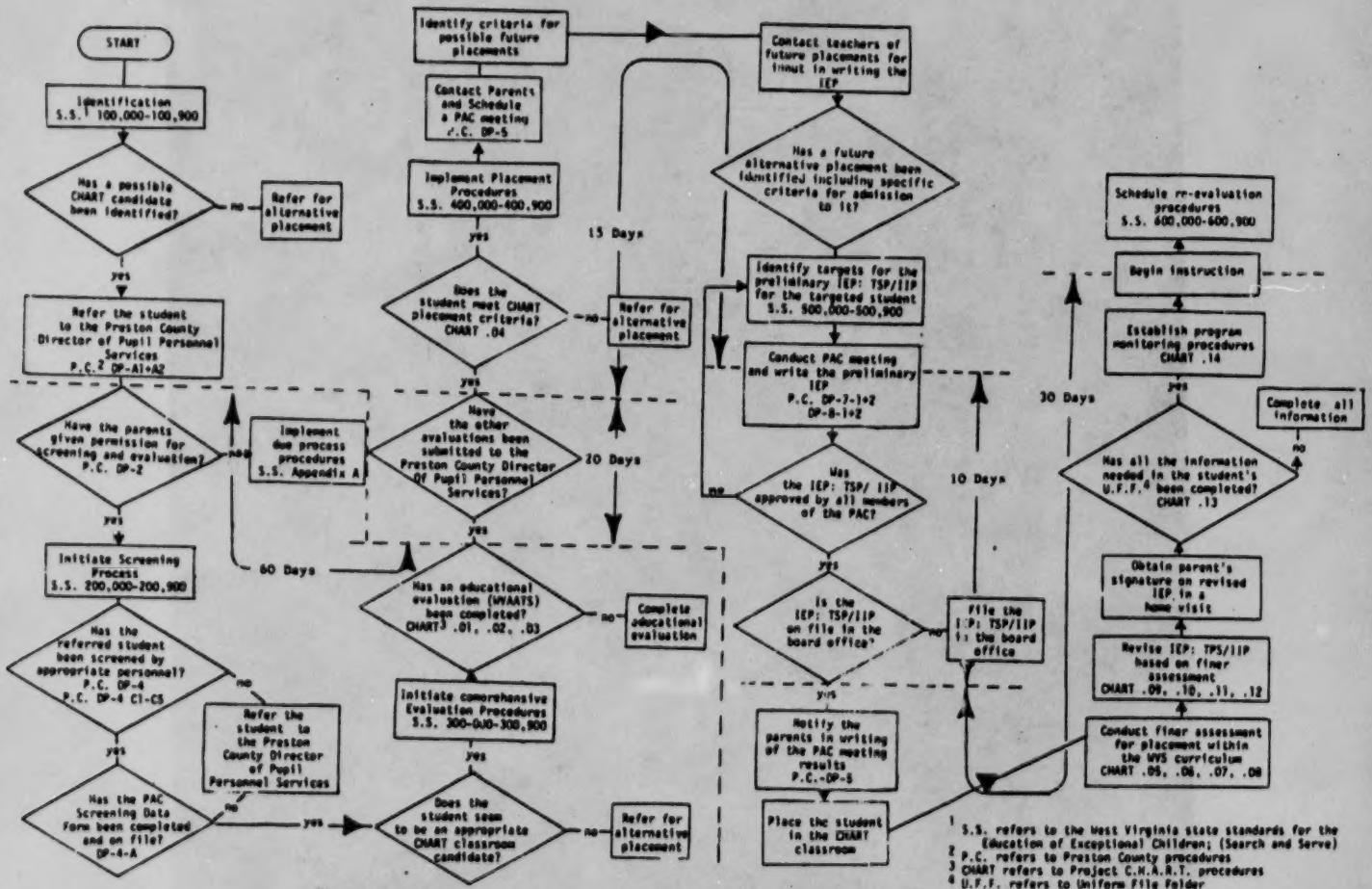
Figure 2

The West Virginia System

Project C.H.A.R.T.

Student Identification and

Placement Procedures


START
Identification S.S.[1] 100.000-100.900
Has a possible CHART candidate been identified?
no
Refer for alternative placement
yes
Refer the student to the Preston County Director of Pupil Personnel Services P.C.[2] DP-A1+A2
Have the parents given permission for screening and evaluation? P.C. DP-2
no
Implement due process procedures S.S. Appendix A
yes
Initiate Screening Process S.S. 200.000-200.900
60 Days
Has the referred student been screened by appropriate personnel? P.C. DP-4 P.C. DP-4 C1-C5
no
Refer the student to the Preston County Director of Pupil Personnel Services
yes
Has the PAC Screening Data Form been completed and on file? DP-4-A
no
yes
Identify criteria for possible future placements
Contact Parents and Schedule a PAC meeting P.C. DP-5
Implement Placement Procedures S.S. 400.000-400.900
15 Days
Does the student meet CHART placement criteria? CHART .04
no
Refer for alternative placement
yes
Have the other evaluations been submitted to the Preston County Director Of Pupil Personnel Services?
20 Days
yes
Has an educational evaluation (WAATS) been completed? CHART[3] .01, .02, .03
no
Complete educational evaluation
yes
Initiate comprehensive Evaluation Procedures S.S. 300-000-300.900
yes
Does the student seem to be an appropriate CHART classroom candidate?
no
Refer for alternative placement
Contact teachers of future placements for input in writing the IEP
Has a future alternative placement been identified including specific criteria for admission to it?
Identify targets for the preliminary IEP: TSP/IIP for the targeted student S.S. 500.000-500.900
Conduct PAC meeting and write the preliminary IEP P.C. DP-7-1+2 DP-8-1+2
Was the IEP: TSP/ IIP approved by all members of the PAC?
no
yes
10 Days
Is the IEP: TSP/IIP on file in the board office?
no
File the IEP: TSP/IIP in the board office
yes
Notify the parents in writing of the PAC meeting results P.C.-DP-5
Place the student in the CHART classroom
Schedule re-evaluation procedures S.S. 600.000-600.900
Begin instruction
Establish program monitoring procedures CHART .14
yes
30 Days
Complete all information
Has all the information needed in the student's U.F.F.[4] been completed? CHART .13
no
Obtain parent's signature on revised IEP in a home visit
Revise IEP: TPS/IIP based on finer assessment CHART .09, .10, .11, .12
Conduct finer assessment for placement within the WVS curriculum CHART .05, .06, .07, .08

1 S.S. refers to the West Virginia state standards for the Education of Exceptional Children; (Search and Serve)
2 P.C. refers to Preston County procedures
3 CHART refers to Project C.H.A.R.T. procedures
4 U.F.F. refers to Uniform File Folder

later years is different from but highly compatible with that used in the rest of the L.E.A.'s special education programs. The principal differences are in format and amount of information included. Some wording differences exist also. For example, long range goals tend to be stated more precisely, i.e., "progresses from dressing and undressing with help to buttoning and zipping independently within eight months" rather than "improves dressing skills" or "will be able to dress self by end of year".

Our model I.E.P., like the S.E.A.'s and L.E.A.'s consists of two parts: (a) a total service plan (T.S.P.), and (b) an instruction implementation plan (I.I.P.). Prioritized training areas, summaries of present level of functioning within them, and long range goals are included in the T.S.P. portion. Annual, monthly, and short-term goals (less than a month to accomplish) are included in the I.I.P. As can be seen in Figure 3, short-term and monthly goals are projected graphically over the months of the school year, so that a visual representation of expected student progress is produced. As the student masters each short-term objective, the teacher writes the date of that accomplishment on the graph. A dot is placed to the left of the last objective mastered each month, and these dots are connected across months to indicate student progress. As long as the dot is on or above the diagonal line of projected progress, the program is on target. In our model, the I.I.P. was sent to parents each month to keep them informed of their child's progress.

The design of the I.E.P. to include this type of formative assessment information helped to change it from a purely administrative document to one that exerted some control over the

Figure 3

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: TOTAL SERVICE PLAN

Pupil _____

County Preston

Birthdate 5/4/76

Grade Early Intervention

I.E.P. Annual Review Date May, 1982

Comprehensive Reevaluation Date December, 1983

Program Termination Date June, 1982

School Kingwood Elementary

Placement Advisory Committee Meeting Date 11/6/81

Placement Advisory Committee Meeting

Signature	Position	In Agreement? Yes	No
_____	_____ *	___	___
_____	_____	___	___
_____	_____	___	___
_____	_____	___	___

_____ _____

Parent/Child Signature of Approval Date

*Chairperson

Description of Educational Placement Recommendation:

Special Education Program Configuration *Sp. class, integrated setting * Hrs/Wk 14

Regular Education Music, freeplay, lunch, snack, phys. ed. Hrs/Wk 8

Physical Education Program Regular - Capon Hrs/Wk 2hrs

Special Transportation Needs Special Education bus with bus aide and seat belts

Career Development Needs Listen to stories about community workers, identify pictures of community workers

Summary of Present Levels of Educational Performance:

Recpt. Lang.: Responds to Simple Commands - Shows at least some movement when asked to do something.

Express. Lang.: Imitates Simple Sounds - Responds with some sound within 6 seconds when asked to say ball.

Fine Motor: Strings and Laces - Strings at least 4 beads on a shoe lace within 4 minutes.

Dressing: Zips, snaps & buttons - Zips rest of way on own or if zipper is started by someone else.

Writing: Holds Pencil or Crayon - Holds regular-sized pencil or crayon in fist grip.

Vocational: Listens to stories about community workers.

Educational and Related Needs:

Speech Therapy 2 times a week

Figure 3 (cont.)

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: IMPLEMENTATION/INSTRUCTIONAL PLAN

County Preston

Pupil

School Kingwood Elementary

Date TSP Completed Dec. , 1980

Date of IIP Committee Meeting Oct., 1981

Date IIP Initiated Oct., 1981

Projected IIP Review Date June, 1982
(duration of services)

COMMITTEE MEMBERS

(Signature / Position)

SUMMARY OF PRESENT LEVELS OF EDUCATIONAL PERFORMANCE:

Recpt. Lang.: Responds to Simple Commands - Shows at least some movement when asked to do something.

Express Lang.: Imitates Simple Sounds - Responds with some sound within 6 seconds when asked to say ball.

Fine Motor: Strings and Laces - Strings at least 4 beads on a shoe lace within 4 minutes.

Dressing: Zips, snaps & buttons - Zips rest of way on own or if zipper is started by someone else.

Writing: Holds Pencil or Crayon - Holds regular-sized pencil or crayon in fist grip.

Vocational: Listens to stories about community workers.

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Evaluation Procedure For Instructional Objectives:

Daily evaluation of student's progress using the Universal Data Sheet

Schedule Of Evaluation Procedures: Daily, prior to each training session.

Program Implementers

Betsy Shamblin / Teacher

Teresa Harsh / Teacher Assistant

Jackie Bucklew / Teacher Assistant

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Figure 3 (cont.)

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: TOTAL SERVICE PLAN

Pupil _____

County Preston

Prioritized Long Range Goals	Specific Special Education and/or Related Services	Starting Date	Projected Ending Date
1a. Receptive Lang - Progresses from pointing to correct object given 2 distractors with auditory similarity thru performing a task with an object to repeating a series of manually demonstrated actions within 8 months.	Receptive Language Training by Teacher daily for 10 minutes	Nov. 16, 1981	June 3, 1982
1b. Receptive Lang - Progresses from selecting shape identical to one held by teacher to indicating pictures of furniture that belong in different rooms of a house to indicating cleanest object from field of 3 within 8½ months.	Receptive Language Training by Teacher daily for 15 minutes	Oct. 12, 1981	June 3, 1982
2. Exp. Lang - Progresses from discriminating between 2 questions & answering appropriately thru asking the time to using singular and plural forms in a complete sentence within 8½ months.	Expressive Language Training by Teacher daily for 15 minutes	Oct. 12, 1981	June 3, 1982

Figure 3 (cont.)

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: TOTAL SERVICE PLAN

Pupil _____

County Preston

Prioritized Long Range Goals	Specific Special Education and/or Related Services	Starting Date	Projected Ending Date
3 Fine Motor - Progresses from holding primary scissors correctly and making random 1" cuts thru cutting out 5 simple picture outlines to tracing a circle using a template within 8½ months.	Fine Motor Training by Teacher daily for 15 minutes	Oct. 12, 1981	June 3, 1982
4. Dressing - Progresses from unbuttoning button which ½ out of button hole thru putting on shoe which is halfway on heel to tieing shoes within 7 months.	Dressing Training by Teacher daily for 10 minutes	Nov. 5, 1981	June 3, 1982
5. Writing - Progresses from holding pencil for 10 seconds when placed in hand thru coloring a square staying within the boundaries to tracing a simple picture within 6½ months.	Writing Training by Teacher daily for 15 minutes	Dec. 16, 1981	June 3, 1982

Figure 3 (cont.)

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: TOTAL SERVICE PLAN

Pupil _____

County Preston

Prioritized Long Range Goals	Specific Special Education and/or Related Services	Starting Date	Projected Ending Date
6. Vocational - Progresses from listening to stories about community workers thru indicating 3 pictures of community workers associated with school systems to indicating 12 pictures of community workers within 2 months.	Pre Vocational Training by Teacher daily for 2 months or 20 minutes	February, 1982	March, 1982

Figure 3 (cont.)

Page ___ of ___

THE WEST VIRGINIA SYSTEM

INDIVIDUALIZED EDUCATIONAL PROGRAM: INSTRUCTION IMPLEMENTATION PLAN

Name: _____

Area/Number: Expressive Language

Annual Goal: Progresses from discriminating between 2 questions and answering appropriately to using singular and plural forms in a complete sentence within 8½ months.

Sessions/Week: 4

Length of Session: 15 minutes

Objectives mastered

3 3 3 3 3 2

Plural 4 - Says singular or plural 5-26-82

Plural 5 - Uses irregular plural form of ~~deleted~~ noun

Plural 3 - Uses singular, plural form 5-5-82

Plural 2 - Uses plural form of noun 5-3-82

Plural 1 - Ans. quest. "What is this" 5-3-82

Asks Quest 12 - Asks question "Is there" 2-19-82

Asks Quest 10 - Asks question to guess what object is. 3-22-82

(deleted)

Ask Quest 9 - Asks question "How much and how many" 3-16-82

Ask Quest 4 - player, mother, child asks quest 3-2-82

Asks Quest 6 - Asks question "What time is it" 2-15-82

Asks Quest 5 - Asks question "Whose ___ is this?" 2-15-82

Asks Quest 3 - Asks question "Where is" 2-8-82

Asks Quest 1 - Asks what an object is 2-1-82

Ans Quest 21 - Answers to who is performing action 1-6-82

Ans Quest 20 - Gives name when asked 1-1-82

Ans Quest 18 - Answers questions about story 12-17-81

Ans Quest 17 - Given 2 sentences explanation - 11-2-81

Ans Quest 16 - Gives simple explanation 10-22-81

SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

27

45 46

teaching process as well. By consulting the I.I.P.s in each program for each child several times a month, the teacher was in frequent contact with the "big picture" for each student, i.e., whether projected annual goals were being met. Appropriate changes could be introduced if this were not the case. Of course, our model also used a finer-grained formative measure, the Universal Data Sheet, on which daily progress was recorded. This allowed us to alter programs that were not working more often than monthly, and was essential for controlling day-to-day teaching decisions. The monthly progress reported on the I.I.P. was the necessary bridge between the molecularity of trial-by-trial recording and more molar pictures provided by pre/post summative measures. Two final features of the I.I.P. were that it greatly facilitated revisions to the student's I.E.P. in the spring and that it helped our instructional staff begin to project annual goals with a bit more realism and accuracy.

5. Providing a model for organizing different curricula. The model for bringing together curricular materials from disparate sources and organizing them in easily retrievable ways became essentially that of The West Virginia System. Specifically, the 20 areas assessed by the WVAATS (see Table 1) served as the major categories into which materials were sorted. Thus, what one author might call "cognitive" (e.g., learns names of colors) we would call "receptive language" (e.g., correctly points to objects when asked "Show me the red (blue, etc.) one.")

Once assigned to the appropriate area, curricular and

assessment devices were then analyzed in terms of the content of the specific objectives covered by them. This allowed us to assign objectives to sub-areas. For example "stands within 3 sec. when asked" would be a receptive language skill falling specifically in the "Follows Simple Instructions" sub-area.

With this organizational scheme it is possible for teachers wanting curricular and/or assessment suggestions for certain skills to go to the area and sub-area of The West Virginia System curriculum and discover what materials have been indexed there. This task is further facilitated by the use of the scope, sequence, and correspondence (SSC) charts mentioned earlier (see Table 3 for example). A teacher in need of suggestions concerning the assessment or teaching of a particular skill simply locates that skill in the SSC by area and sub-area and reads across the column entries to identify assessment instruments and/or curricula in which the skill has been treated.

Using an organizational structure such as this an individual teacher or a school district's special education curriculum coordinator can easily categorize new materials as they become available, merely by analyzing their content. Filing these materials by area and sub-area would facilitate rapid retrievability for later use. Moreover, duplication and waste within whole school systems could be greatly reduced by such a system since individual teacher requests for materials could easily be checked against current inventory before purchasing them. By using a skill-based organizational structure for special education resources rather than the "name of the item, publisher, etc."-based systems currently predominant, teachers could be

alerted to alternative, already available materials for assessing and/or teaching the specific skills of concern. In larger districts where there are multiple teachers for each type of class and infrequent contact between them this is likely to be a more important asset than in districts where a single teacher is responsible for say, severely handicapped preschoolers and would tend to know what materials are available since they are probably in his/her room.

Under the general goal of curriculum organization the project undertook to produce collections of assessment and instructional materials in the three Sensory Zone areas of the WVAATS, i.e., tactile, auditory, and visual responsiveness. These collections are presented in the form of curriculum binders (see Appendices B-D). The accomplishment of this goal resulted in the completion of The West Virginia System, the most comprehensive set of integrated assessment, curricular, progress monitoring, and parent involvement procedures ever developed for handicapped persons.

In producing the tactile, auditory, and visual responsiveness binders, a total of 21 different assessment and curricular sources was examined. Some 518 objectives were extracted from these sources and rewritten in the three-part form suggested by Mager (1962). They were then sorted into sub-areas within each of the three larger areas and sequenced from simple to complex in terms of instructional difficulty. Sequencing was performed independently by at least two persons for each sub-area, and discussions, rewriting, and adding new objectives continued until a rank order correlation of at least .80 was reached.

Objective sequences were then examined for completeness, and

intermediate objectives were written to fill gaps. The resulting task analyses then served as the basis for writing instructional procedures. Each objective was placed on a separate method card and step-by-step instructions were written for assessing and teaching it. The steps generally proceed from assessment (Step 1) through a series of generally more compelling (forceful, restrictive) prompts (Steps 2-3). Thus, the student will initially be asked (vocally or manually) to perform the skill. If s/he does not, a gestural prompt will be added to the command. If the student still does not perform the response correctly, a modeling prompt is added to the previous two. Finally, a physical prompt is added. Teachers proceed through levels of increasingly more compelling prompts only so far as is necessary to produce the correct response. These prompts are then faded in reverse order so that the student is eventually performing the objective independently.

To check the completeness of each teaching strategy, a flowchart was frequently constructed depicting the series of steps and their sequencing. Revisions occurred whenever the method being suggested led the teacher to a dead end. By following the steps carefully, there is never any question as to exactly what is supposed to happen next.

Thus, each of the 518 objectives produced by the project has a specific, step-by-step method for teaching it. These methods appear on method cards which are organized by area and sub-area and sequenced in the order in which they should be taught. The resulting tactile, auditory, and visual curriculum binders provide a valuable resource for teaching sets of

heretofore relatively neglected but very basic responses. A commercial outlet for these materials as well as the rest of The West Virginia System materials is now being pursued.

6. Evaluating objectives sequences. The model demonstration project was viewed from the outset as a vehicle for adapting already existing curriculum materials for use with preschool children. It was also expected that these materials could be evaluated in the project. Specifically, sequences of objectives in The West Virginia System curriculum were evaluated for completeness and correctness of order. During the third project year, 157 different objectives sequences (task analyses) were used. For each, classroom teaching personnel indicated whether (1) additional objectives had to be written to render the sequence effective for the child they were teaching, or (2) the order of the sequence needed to be revised to make it more effective. Appropriate revisions incorporating the additional objectives and/or re-ordered sequences were then undertaken. Of the 157 sequences used, 22 were revised. These involved task analyses from eight of the 20 curricular areas.

The rationale for these analyses was that some way of evaluating the previously untested curriculum materials of The West Virginia System was needed. Because most of the task analyses had been produced rationally rather than empirically, it was not known whether they would be effective when used with handicapped students. Of course, the ultimate test of any instructional material is its production of expected change in the students with whom it is used. The present analysis deals only

with the adequacy of the structure of the curriculum, however, and not its effectiveness in producing change, though it is assumed that structure and function are related in this case. An evaluation of the latter will be described in a later section.

It should be noted that these analyses provide only the barest beginnings of an evaluation of the structure of The West Virginia System curriculum. To the extent that these particular sequences are representative of those in the curriculum generally, we can assume that its structure, while not perfect, is reasonably adequate with respect to these characteristics. Whether the sequences are representative, however, is debatable. They were not randomly selected from all of those available, and they were limited primarily to areas of the Primary Zone. Whether comparable results would be obtained for sequences in the Sensory and Secondary Zones must await further study.

7. Evaluating direct teaching strategies. The effectiveness of the direct teaching strategies embodied in the prompt sequences of the method cards was evaluated systematically in Years II and III of the project. A thorough discussion of this evaluation will be presented in the Administration, Management, Evaluation section later in this report.

B. Services for Parents. During the first year of the project a parent needs assessment survey form was developed to determine the types of information and skills our parents wanted us to provide them. As mentioned in the continuation proposal for Year III submitted in January, 1981, the use of this device led to slight changes in the objectives originally proposed for this

component of our model. Nonetheless, to be consistent with the format in other areas of this final report, accomplishments in our Services for Parents component will be presented in the context of discussing the original objectives. It will be seen that our accomplishments go somewhat beyond these objectives, however.

1. Training parents to use community resources. Our needs assessment procedure (see Appendix E) was a slightly modified version of one developed by WESTAR (1979). When administered to our parents in Year I, it was determined that their interest in learning to use community resources was of lower priority than other areas. A mean profile of parent concerns across the seven areas assessed can be found in Figure 4. A higher percentage score reflects a higher percentage of the parents wishing more information about an area. An analysis of the profile shows parents most concerned about receiving additional information in three areas: (a) handicapping conditions, generally; (b) tests and measurement; and (c) specific ways of training their child themselves.

Based on this information, a program of parent group meetings was developed and carried out in the second year. The schedule, topics, and attendance of these meetings are presented in Table 4. Parent satisfaction with these meetings was assessed via Item 7 of the Parent Satisfaction Rating Form developed by the project (and abstracted in Vandiviere and Bailey (1981)). All parents rated this item as a 1 (on a 6-point scale with, 1 being highest), indicating their general satisfaction with the parent group meetings.

2. Involving parents in constructive activities

THE WEST VIRGINIA SYSTEM

Project C.H.A.R.T.

Family Name: _____ Date: _____

Parent/Family Involvement
Needs Profile

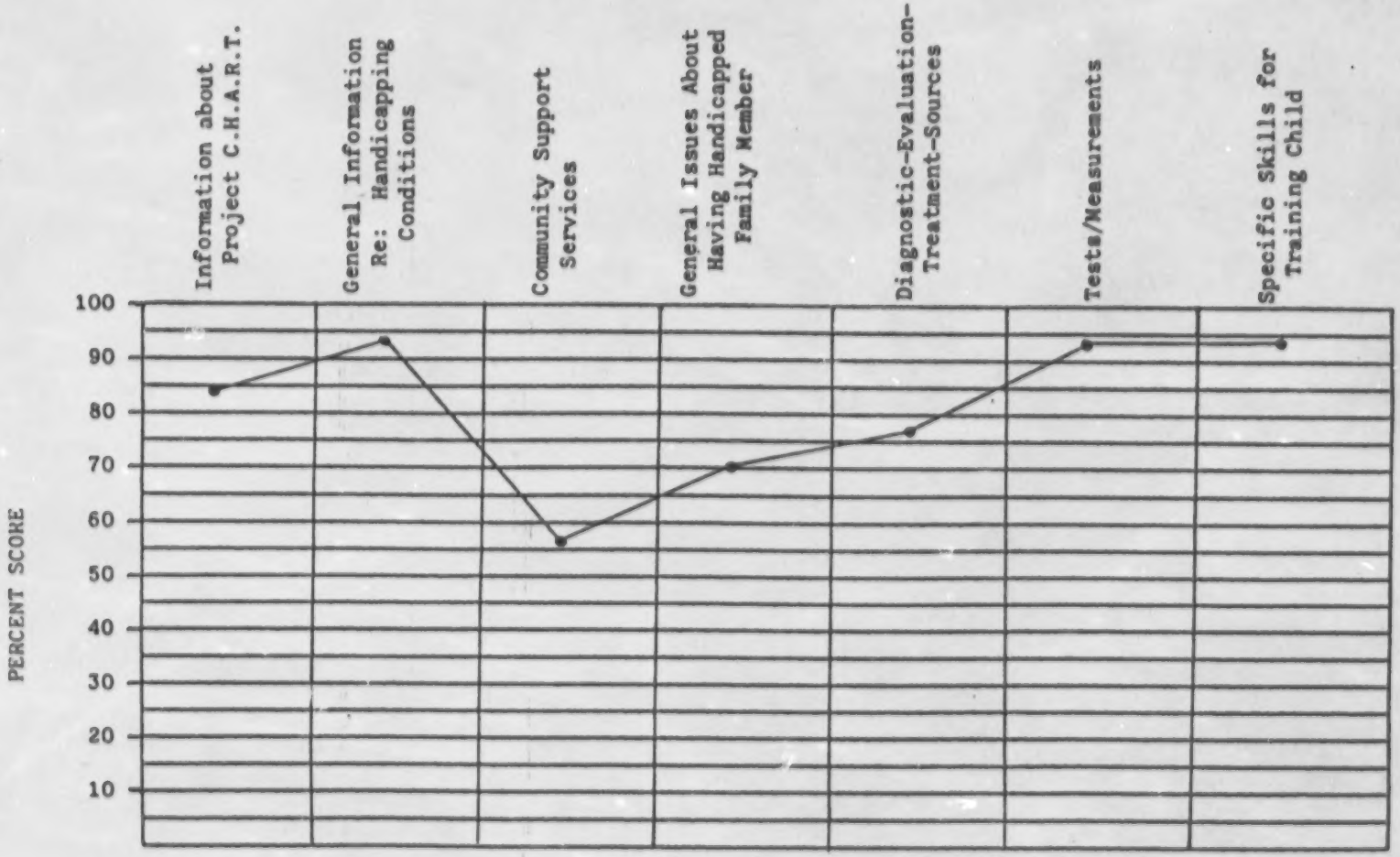

Figure 4

Table 4

The West Virginia System
Project C.H.A.R.T.
Parent Group Meeting Dates, Agendas, and Attendance
1980 - 1981

October 23, 1980	Open House for all Early Childhood Education students (6 - 9 PM)
November 20, 1980	Betsy Shamblin (Project C.H.A.R.T. Teacher) Marilyn Frank (Project C.H.A.R.T. Coordinator) Introduction to Parent Involvement Program Overview, needs assessment information, H.E.P., IIP's as Progress Reports, integrated classroom, watch videotapes (7 - 8 PM) Attendance = 6 parents
December 15, 1980	John D. Cone, Ph.D. (Psychology Department, WVU, Project C.H.A.R.T. Director) IQ Tests and Your Child What IQ tests are, what they measure, what they mean to parents, other types of frequently administered tests. (Examined IIP's as Progress Reports) (6:30 - 8:00) Attendance = 5 parents
January 22, 1981	John Podbesek (Speech Therapist, Preston County Schools) Speech and Language Development Parents have the most influence on speech and language development in their child, how you can reinforce your child for using speech, common speech and language problems, techniques used to remediate problems. (Betsy explains "Catch 'em being good", examine IIP's as Progress Report) (6:30 - 8:00) Attendance = 6 parents
February 19, 1981	Fred Orelove, Ph.D. (Assistant Professor, Special Education Department, WVU) General Handicapping Conditions Major causes and types of handicapping conditions, educational labels, specific handicaps (e.g., hydrocephaly, spina bifida, cerebral palsy, epilepsy, etc.), prevention of handicaps. (Examine IIP's as Progress Reports) (6:30 - 8:00) Attendance = 3 parents
April 23, 1981	Marybeth Harris (Instructor, Neurology/Physical Therapy Department, WVU) Physical Therapy A general overview of what physical therapy is, the benefits of physical therapy, handicapping conditions which frequently necessitate physical therapy, importance of positioning, efficacy of starting at an early age. (6:30 - 8:00) Attendance = 2 parents

May 21, 1981	William F. Byrne, Esq. (Attorney in Private Practice, until recently was a Staff Attorney with Legal Aid Society in Morgantown, has also worked with WV Association for Developmental Disabilities) Legal Issues and the Handicapped P.L. 94-142, IEP's, legislation and litigation for special education (especially early childhood), least restrictive environments, developmental disabilities (Act 504), insurance, legal aid. (6:30 - 8:00) Attendance = 3 parents

with their children at home. A major thrust of our parent component involved showing parents ways to interact constructively with their children at home. The foundation for this part of our family involvement activities was the Home Enrichment Program (HEP, Hawkins, Bieniek, McGinnis, Timmons, Eddy, & Cone, in press). The HEP was originally designed as the parent involvement component of The West Virginia System. As such, it consists of 396 game like activities that parents can engage in with their handicapped child. Each activity is written on an individual sheet of 8 1/2" by 11" paper (HEP card) and each is correlated with the twelve areas of the Sensory and Primary Zones in The West Virginia System.

The purpose of the HEP is to promote reinforcing interactions between parents (or other family members) and their handicapped child. The activities specified on the cards are designed to be fun for the participants while at the same time supplementing the more formal instruction occurring in the classroom. The HEP cards have been deliberately restricted to 15-20 minute activities requiring only materials commonly found around the house. An example of a HEP card can be found in Figure 5. It can be seen that this particular HEP activity is designed to facilitate eye-hand coordination and is correlated with the stringing and lacing sub-area of the fine motor curriculum area from The West Virginia System. Because HEP cards are refrenced to the curriculum areas and sub-areas of The West Virginia System it is relatively easy for a teacher working on a particular skill at school to select a corresponding

Figure 5

Sample Card from the Home Enrichment Program — PROJECT C.H.A.R.T.

MAKE A NECKLACE

WHY:	To help in lacing skills and develop ability to work with hands.
SKILLS NEEDED:	Good vision, stacks blocks (or similarly difficult task)
MATERIALS NEEDED:	Either a large shoelace with a good tip or a crochet hook and string; rigatoni noodles, beads, spools
SUGGESTED TIME:	5-10 minutes
WHERE:	At the table, on the floor
HOW:	Tie the string to the crochet hook. String one of the objects over the hook/lace and tie a knot around the spool or noodle to prevent others from sliding off. Place a rigatoni noodle in front of the child. Say, "___, make a necklace." You may have to help the child place the hook/lace through the noodle. Praise the child for "making a necklace." Wear the necklace or have the child wear the necklace for a short time. Then, either start a new necklace, or take the first one apart and start again. You might want to color the necklace with felt-tip pens and wear it proudly.
ADJUSTING DIFFICULTY:	Increase the number of beads/noodles/spools to string. Have the child string smaller macaroni (elbow macaroni) or spools using a shoelace.
RELATED ACTIVITIES:	Help the child start lacing a shoe.

WVAATS AREA: Fine Motor
SUB-AREA: Stringing and Lacing

39

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HEP activity for parents to do at home to supplement the classroom instruction.

As the model for our parent services component unfolded, it became clear that each of our families was at a somewhat different point or level in terms of the extent of their participation in our program. When we looked at other programs it also became clear, at least at a rather subjective and superficial level, that there is a great deal of variability in the ways programs involve parents and in the overall amount of involvement they produce.

These observations led us to do two things in our model. First, we developed an objective way of assessing the types of involvement parents might have in their child's program as well as their overall level of involvement. Second, we developed our own parent component to reflect four different levels of interaction or engagement with a program.

Our measure of parental engagement, the Parent/Family Involvement Index (P./F.I.I., see description in Vandiviere and Bailey, 1981) has been field tested in several school districts, revised to incorporate field test findings, and is currently being field-tested again. Thus far we have collected data on 239 families in programs in four different states. The first version was shown to have high levels of reliability and to produce reasonable variability in distributions of scores for the twelve areas assessed. Means and intercorrelations among the areas are presented separately for the 39 mothers and 20 fathers included in the field test of the initial version in Table 5. Comparable data for the revised version are now being analyzed.

Table 5

Correlation Matrix: Pilot P./F.I.I. Data Collected 1980 - 81

Mothers \ Fathers

		CT 1	PART 2	TRAN 3	OBS 4	EAH 5	PT 6	VS 7	PPC 8	INA 9	FR 10	AG 11	DI 12	OR 13	OS 14	$\bar{X}_T$	N
1.	Contact with Teacher (CT)		.54	-.36	.01	-.02	-.14	-.01	0	-.31	.18	.11	-.08	.18	.66	57.5	20
2.	Particip. in SE Process (PART)	.81		.61	.15	.28	.60	.56	0	.42	.22	.49	.67	.17	.61	24.5	17
3.	Transportation (TRAN)	.26	.32		-.12	.36	.01	.39	0	.09	.01	.47	.35	.34	.40	34.6	17
4.	Observations at School (OBS)	.17	.31	.36		.72	.46	.75	0	.38	.01	.64	.78	.43	.84	22.1	17
5.	Educational Activities at Home (EAH)	.37	.69	.26	.49		.44	.63	0	.17	-.02	.43	.53	.20	.74	43.6	16
6.	Attending Parent Ed/Consult. Mtgs (PT)	.39	.52	.36	.47	.61		.45	0	.56	.47	.41	.7[illegible]	.13	.73	21.3	17
7.	Volunteering Services (VS)	.40	.45	.19	.46	.56	.49		0	-.01	.18	.94	.65	.48	.77	7.5	16
8.	Parent/Parent Contact & Support (PPC)	0	0	0	0	0	0	0		0	0	0	0	0	0	0	4
9.	Involvement with Administration (INA)	.01	.34	.37	.46	.33	.54	.15	0		.32	-.14	.43	.58	.52	18.9	20
10.	Involvement in Fund Raising (FR)	.17	.14	.46	.55	.16	.22	.36	0	.13		.51	.76	-.03	.37	11.8	17
11.	Involvement in Advocacy Groups (AG)	.20	.16	.34	.42	.[illegible]3	.44	.11	0	.14	.37		.81	0	.64	5.4	14
12.	Disseminating Info (DI)	.03	.14	.44	.49	.33	.35	.03	0	.3[illegible]	.46	.66		.50	.84	8.3	16
13.	Overall Rating (OR)	.39	.55	.47	.54	.75	.[illegible]7	.47	0	.46	.34	.40	.50				
14.	Overall Score (OS)	.53	.67	.59	.72	.77	.60	.61	0	.59	.50	.93	.56				
	$\bar{X}_M$ =	79.7	75.9	27.1	29.0	43.6	41.6	23.7	0	12.5	4.6	6.8	5.4				
	N =	39	38	39	39	39	36	36	6	36	36	33	34				

It is expected that a paper describing the measure will be submitted for publication in a professional journal by June, 1983. A copy of the present version of the P./F.I.I. can be found in Appendix F.

The P./F.I.I. was originally designed to assess degree of parent involvement in their child's program and to provide a means for individual teachers to evaluate the completeness of their own parent involvement efforts. It was expected that the measure could also be used to compare the amount of involvement generated by different programs.

An additional use emerged from our own experience with the device during Year III of the project. It was observed that the P./F.I.I. can be used in a prospective, educational manner as well as in the retrospective, evaluative manner originally intended. That is, parents can be given the device themselves early in the school year and asked to indicate different ways they would like to participate in their child's program. Completing the form might educate them as to various possibilities they had not considered. Additionally, their responses might be used by the teacher to plan activities to foster certain types of parent involvement during the year. Teachers might also opt to assign tasks to parents (e.g., present program to local civic group; serve as field trip chaperone, etc.) on the basis of their expressed preferences for various types of involvement in the program.

Taken together, the Parent Needs Assessment survey and the Parent/Family Involvement Index could serve as the basis for a comprehensive assessment of individual family needs and

preferences and lead to the production of family involvement programs individually tailored to each. By using these measures the degree of participation to be expected by different families can be established and programs specific to various levels can be developed. Such logic provided the basis for the second major product of our parent component, a paper describing four levels on which parent programs can be organized. (See Appendix G for an outline of this paper.) The paper assumes parents can be classified in terms of the type of interaction they have with information about their child's condition and the nature of his/her educational program. Minimally (Level I), parents are passive recipients of information. At Level II, parents are active pursuers of information which they subsequently use under supervision (Level III) and eventually independently (Level IV).

The paper is more or less an inductive summary of our observatons of how different parents will become involved in their child's program. It is the result of what our parents taught us during the three years of our model program, rather than the a priori design of a model which we then implemented and evaluated. It describes checklists, assessment devices, ways of communicating with parents, and training procedures which seemed to work for us and which were consistent with our overall model as represented by The West Virginia System. We have not evaluated it, however, and will have to leave its overall, formal effectiveness undemonstrated for the present.

3. Training parents to discriminate independence/dependence-fostering behavior. Our initial project goal to make parents aware of the ways they foster independence rather

than independence was not pursued as systematically as we originally intended. We did use the occasions of home visits to show parents what their child had learned in school and to encourage them to require the highest level of performance of each skill at home. Rather than doing something for the child because (a) "s/he can't do it", (b) "s/he is too messy when she does it by herself", (c) "It takes too long for him/her to do it", etc., parents were encouraged to see these as important opportunities for enhancing their child's development. We pointed out to parents the difference between short and long-term rewards, noting that "putting up with" the inconvenience in the short run would lead to a child less dependent on them to do things for him/her in the long run.

Those parents participating in Level IV of our parent involvement program were more formally trained to provide only that level of prompting necessary for the child to perform a response. This occurred through parents learning to use the method cards of The West Virginia System. It will be recalled from our earlier discussion above that such method cards follow a progression from least to most compelling (forceful, restrictive) prompt Underlying such a progression is the preference that a child be given the opportunity to perform as independently as possible. At least informal efforts were directed toward showing parents the relationship between such instructional tactics and the notion of fostering independence at home.

C. Staff Development. The principal objective of this component of our model was to assure that classroom personnel

implemented each aspect of the model as accurately as possible. Essentially, this required training teachers, aides, and graduate students in:

1. educational assessment of individual children;
2. target behavior selection;
3. writing behavioral objectives;
4. writing I.E.P.s;
5. selecting training programs;
6. designing and writing training programs;
7. direct instruction of handicapped children;
8. monitoring student progress;
9. evaluating the effects of instructional procedures;
10. arranging instructional resources;
11. arranging instructional environments;
12. interacting with other classroom personnel;
13. interacting with related service providers;
14. managing an effective parent/family involvement program;
15. managing the special medical needs of children.

During the three years of model demonstration funding we trained a total of six teachers, two aides, two project coordinators, and two program administrators (from other L.E.A.s). In addition we trained six graduate students from various disciplines, and an equal number of undergraduates. Among the teachers trained were two from the Richmond, VA schools who cooperated in a systematic replication of our procedures, and the teacher who was hired by the L.E.A. to continue the model after its initial H.C.E.E.P. funding expired.

Our overall approach to staff development consisted of (1)

formal, data-based training activities of both preservice and inservice varieties, and (2) informal opportunities to expand their knowledge via consultation with other professionals and visits to other handicapped childrens early education programs.

Our data-based procedures used the model to teach the model. Thus, a staff member's skill in various aspects of the program (e.g., assessment, curriculum, Home Enrichment Program, progress monitoring, I.E.P. generation, and direct instruction) would be pre-tested and a profile of strengths-weaknesses across sub-areas would be generated. An Individualized Inservice Education Plan (I.I.E.P.) would then be developed specifying goals, timelines, responsibilities, and formats. These would be tailored to the individual such that only those sub-areas for which pre-test proficiency was not demonstrated and which were necessary for the person's particular role in the project would be covered. Training was self-paced and used multiple media.

An example of a profile of skill levels in the various sub-areas of assessment using the West Virginia Assessment and Tracking System (WVAATS) is presented in Figure 6. It can be seen that this particular staff member (actually a graduate student) was initially proficient with respect to the technical aspects of the WVAATS so training was not needed in this sub-area. His pre-training knowledge of the rationale for and development of the measure was relatively high, but required some training, as did administration and scoring and interpretation of the device. Following training, this student's post-test profile indicated mastery was reached in all four sub-areas. Because he was not going to need to administer the WVAATS, he was not

Figure 6

THE WEST VIRGINIA SYSTEM

Name _____

Date this profile was completed: 8/31/81

Supervisor: _____

Implementor: _____

_____

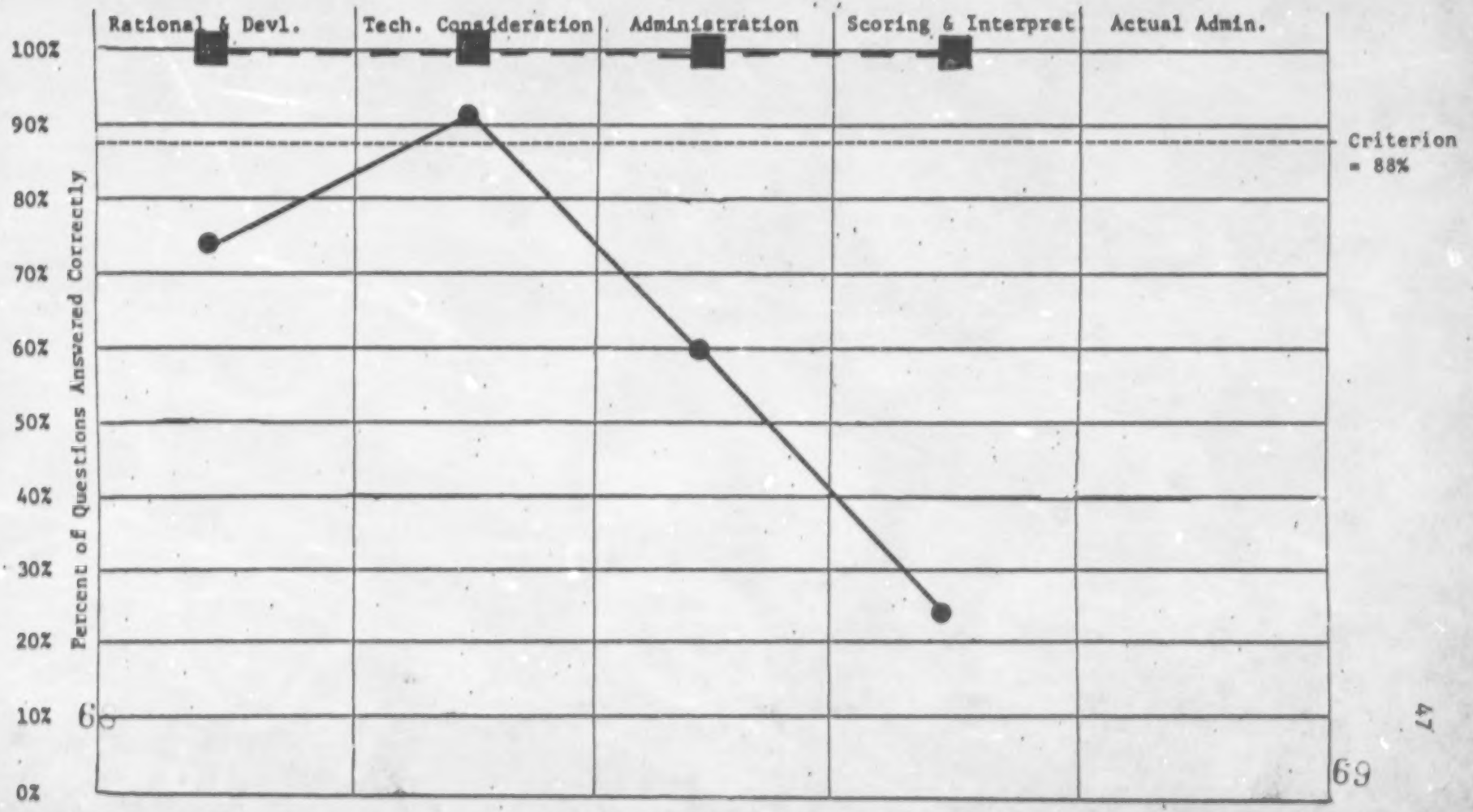
WVAATS INSTRUCTIONAL MODULE PROFILE

● = Pretest Score

■ = Postest Score

▲ = Postest 2 Score

WVAATS Instructional Module Sub Areas



pre and post-tested during an actual administration session. Thus, no scores are reported for this sub-area.

Information from the pre-test would be used in the development of an I.I.E.P., a copy of which is presented in Figure 7. There is an I.I.E.P. form simlar to this for each of the staff instructional areas covered.

It should be noted that many of our formal staff training procedures have been developed jointly by staff of this project and those of the Training Resource Center operated by the West Virginia Department of Health at Colin Anderson Center, St. Marys, WV. Moreover, some of the most important training of our staff was provided at the Training Resource Center which was developed specifically for instruction in the implementation of The West Virginia System.

Probably the most important staff training we provided was in the area of direct instruction using our curricular procedures. The written portions of this training were typically accomplished at our offices at West Virginia University. The applied portions were conducted at Colin Anderson. Applied training in direct instruction involves: (1) the systematic observation of a trainee's skill at working with a handicapped child; (2) following these baseline observations with RAPP (remote auditory prompting and praising) sessions during which the trainee works with a child and is instructed from behind a one-way mirror via a wireless FM transmitter and receiver; and (3) post-RAPP observations to assess change over baseline. All direct observations of trainee behavior are accomplished using the Staff-Pupil Interaction Recording System (SPIRS, Cone, Nyberg, & Watson, 1980). Using the SPIRS it

Figure 7

Client's Name: _____

Supervisor: _____

Unit: _____

DEPT. of HEALTH

TEACHER TRAINING LABORATORY

INDIVIDUAL INSERVICE EDUCATION PLAN

(IIEP)

Implementer of this plan: _____

_____

Other persons participating in planning or implementing this IIEP:	Position	Agrees yes	Agrees no
Signature of client:			

Recommended Training Priorities:

WVAATS TRAINING BINDER

Pre-test Profile Score:

- ◯ Development Sub-area _____
- ◯ Technical Considerations Sub-area _____
- ◯ Procedures for Administering WVAATS Sub-area _____
- ◯ Scoring The WVAATS Sub-area _____
- ◯ Actual Administration of the WVAATS Sub-area _____
- ◯ Others: _____

_____

_____

Long term training goals: (ordered by priority)	Hrs./Wk.	Dates start	Dates end

Short term objectives: (see criterion reference chart)

Dates:

Date this plan documented: _____

Date this IIEP to be implemented: _____

Frequency that this plan will be reviewed: _____

Comments:

is possible to calculate the percentage of correct teaching interactions and the overall rate of sequences correct per minute. Additional RAPP sessions are programmed until the trainee reaches 88% correct teaching sequences.

The informal aspects of our staff development component were highlighted by two visits to other handicapped childrens' early education programs. These trips were supported by TADS and included visits to the Bozorth Child Development Center at Glassboro State College in New Jersey, and the Preschool Program of the Division of Individual and Family Studies in the College of Human Development at The Pennsylvania State University. Both visits were made by our teacher and the two teachers of the early childhood classes with which ours was integrated. The programs visited were selected because of their own emphasis on the integration of handicapped with non-handicapped children. Benefits of these trips included improved communication among the three teachers, ideas for activities involving all of the children together, and reinforcement of the general notion that integrated preschool education is an imminently manageable enterprise.

It should probably be mentioned here that the major skills emphasized in our formal staff training program were monitored continuously after training was completed. This was especially true in the areas of summative assessment, formative assessment, and direct instruction. A combination of checklists, informal observation, and videotapes of teacher-pupil interaction was used in this monitoring process. The overall level of staff monitoring was probably higher than in typical model demonstration programs. However, because of the relatively systematic nature of our

program evaluation activities to be discussed later, such frequent staff monitoring was necessary to insure faithful implementation of the model.

D. Demonstration/Dissemination

1. Advisory council. An advisory council which included state-level representatives of the Departments of Health, Education, and of Welfare and a member from the state level of the West Virginia ARC was created in Year I and met quarterly for the remainder of the project. A list of advisory council members is included in Table 6. Over the three years ten meetings of the council were held, all in Kingwood, WV. The makeup of the council and consistency of meeting attendance helped fulfill the first of our demonstration/dissemination objectives, that of producing model visibility via state level advisory council representatives.

2. Demonstrating features of the model. Objectives 2-7 of the demonstration/dissemination component concerned demonstrating various characteristics of the model to other staff of the host L.E.A., and visitors to the class from outside the L.E.A. Because of its relatively remote, rural location the project was never inundated with visitors. Nonetheless, procedures for handling on-site visitors were written and followed more or less closely in the second and third project years. From the time we began keeping a log of visitors (10/80), a total of 28 non-project related persons visited.

In addition, various aspects of the model such as its uniform progress monitoring procedures, and its summative assessment

Table 6

Project C.H.A.R.T. Advisory Council Members

Rorella Archer, Director
Childrens' Services
Department of Welfare
1900 Washington St. East
Room 850-E
Charleston, WV 25305

Linda Benson
104 Brown Avenue
Kingwood, WV 26537

Mary S. Blizzard, Director
Employee Relations
Department of Health
State Capitol
Charleston, WV 25305

Mike and Brenda Cool
Rt. 2, Box 161-A
Tunnelton, WV 26444

Jan Nash, Coordinator
Developmental Disabilities
Valley Comprehensive
Community Health Center
301 Scott Avenue
Morgantown, WV 26505

Kay Hawkins
257 Park Street
Morgantown, WV 26505

Carole D. Jackson
109 Spring Hill Dr.
Kingwood, WV 26537

Waneila C. Halbritter, Director
Student Support Services
Preston County Schools
P.O. Box D
Kingwood, WV 26537

Dr. Louise Kaczmarek
Special Education Department
606 Allen Hall
West Virginia University
Morgantown, WV 26506

Betsy Shamblin, Teacher
Project C.H.A.R.T. Classroom
Preston County Schools
P.O. Box D
Kingwood, WV 26537

Mr. William Rosier
Preston County Bd. of Education
121 East High Street
Kingwood, WV 26537

Mr. Gary Warnick
Preston County Bd. of Education
121 East High Street
Kingwood, WV 26537

Mr. Charles Lucas
Route 4
Birdscreek Road
Kingwood, WV 26537

Nancy Vorobey, Coordinator
Preschool Handicapped
Capitol Complex
Building 6, Room B-315
Charleston, WV 25305

Charles and Debbie Nestor
Rt. 1, Box 182
Thornton, WV 26440

procedures were demonstrated to enquiring persons from all over the country via written document describing their use. The abstracting of two of our parent component measures (the P./F.I.I. and the P.S.R.F.) in Vandiviere and Bailey (1981) led to opportunities to "demonstrate" something about our model to numerous persons who wrote asking for copies of them.

Perhaps the most systematic demonstration we did involved the training of teachers and aides in two classrooms of the Undifferentiated Multihandicapped Primary Child program of the Richmond, VA schools. These persons participated in the controlled replication of parts of our model to be mentioned in Section E. below. In their use of our procedures during the second and third model years, they, in essence, served as additional model sites. Visitors to their classes were exposed to the same summative and formative assessment procedures and to the same curricular methods. Unfortunately, a systematic log of visitors to the Richmond classes was not kept, so it is difficult to know how many persons may have been exposed to demonstrations of our procedures there.

3. Presentations at professional meetings. During the three years of model demonstration funding presentations about the project were delivered at five national conferences in the U.S., and at one in Spain. A list of these presentations can be found in Table 7. In addition, an in-depth presentation of the model was delivered at the WV State D.E.C. annual meeting in December, 1981.

4. Publications in professional journals. Perhaps one of our greatest failures has been in this area. While we have

Table 7

Presentations of Information About Project C.H.A.R.T.
at National Conferences

Date	Location	Conference
May, 1980	Dearborn, MI	Association for Behavior Analysis
December, 1980	Washington, D.C.	H.C.E.E.P./D.E.C. Conference
June, 1981	Norman, OK	Rural Consortium Meeting
September, 1981	Madrid, Spain	Spanish Psychological Association
October, 1981	New York City	The Association for the Severely Handicapped
December, 1981	Washington, D.C.	H.C.E.E.P./D.E.C. Conference

given a reasonable number of presentations at conferences on the national level, we have not converted these to manuscripts submitted to professional journals. A study conducted to evaluate the training of observers to use a direct observation procedure for coding social interaction between the children has been written up and submitted for publication (Wolfe, Cone, & Wolfe, 1982). It is expected that portions of the evaluative data to be described in a later section will also be submitted for publication at some time.

5. Slide tape show. A 20-minute slide tape show was completed by the project coordinator during the third year. It has been shown to one civic group and to several classes at West Virginia University thus far. The text of this show is presented in Appendix H.

6. Newspaper stories. During its three-year period of federal funding Project C.H.A.R.T. was described in twelve different newspaper accounts and in one newsletter story. The dates and outlets for these stories are presented in Table 8. In addition, copies of three of the more recent articles are included in Appendix I.

Overall, the project can be satisfied with its accomplishments in the demonstration/dissemination area, even though all of the originally proposed objectives were not met. A final observation is that a brochure describing Project C.H.A.R.T. was printed in Year II even though this was not one of the original project objectives. The brochure has been widely distributed.

Table 8

The West Virginia System

Project C.H.A.R.T.

Newspaper/Newsletter Articles

1979-1982

DATE	OUTLET
June 9, 1980	The Dominion Post
July 6, 1980	The Dominion Post
September, 1980	The Dominion Post
November 10, 1980	Preston County Journal
February 15, 1981	The Dominion Post
February 20, 1981	Daily Athenaeum (DA)
April, 1981	WV-DECade Vol. 1 No. 3
August 27, 1981	Preston County Journal
August 28, 1981	Preston County Edition (Dominion Post)
April 25, 1982	The Dominion Post
May 23, 1982	Preston County Journal

E. Administration/Management/Evaluation

This component was responsible for the preparation of progress reports, continuation proposals, budgets, needs assessment surveys and the myriad other administrative details required for the smooth functioning of a project this size. A major focus of this component was also program evaluation. Thus, in this section of the report we present most of the data collected to evaluate the program. Some of these might better have been included in the respective sections dealing with the components evaluated, but ultimately it seemed preferable to present these data in a single section. As with the previous portions of this report, the original project objectives will be discussed in order below.

1. Written statement of program philosophy. Such a statement or statements are embodied in the original grant proposal and in performance reports and continuation proposals submitted to the funding agency since the project began.

2. Project goals, objectives, and timelines. The establishment of these in accordance with proposed objectives is evidenced by the milestone tables included in program performance reports and continuation proposals.

3. Organizational chart. Oddly enough, the project became organized and remained essentially as depicted in the proposed organizational structure included in the original grant application and presented in Figure 8. Some alterations in time commitments were effected, however. For example, the director actually served about .34 FTE rather than the .50 FTE originally proposed, and the secretary was shifted from .50 FTE to 1.0.

Proposed Organizational Structure

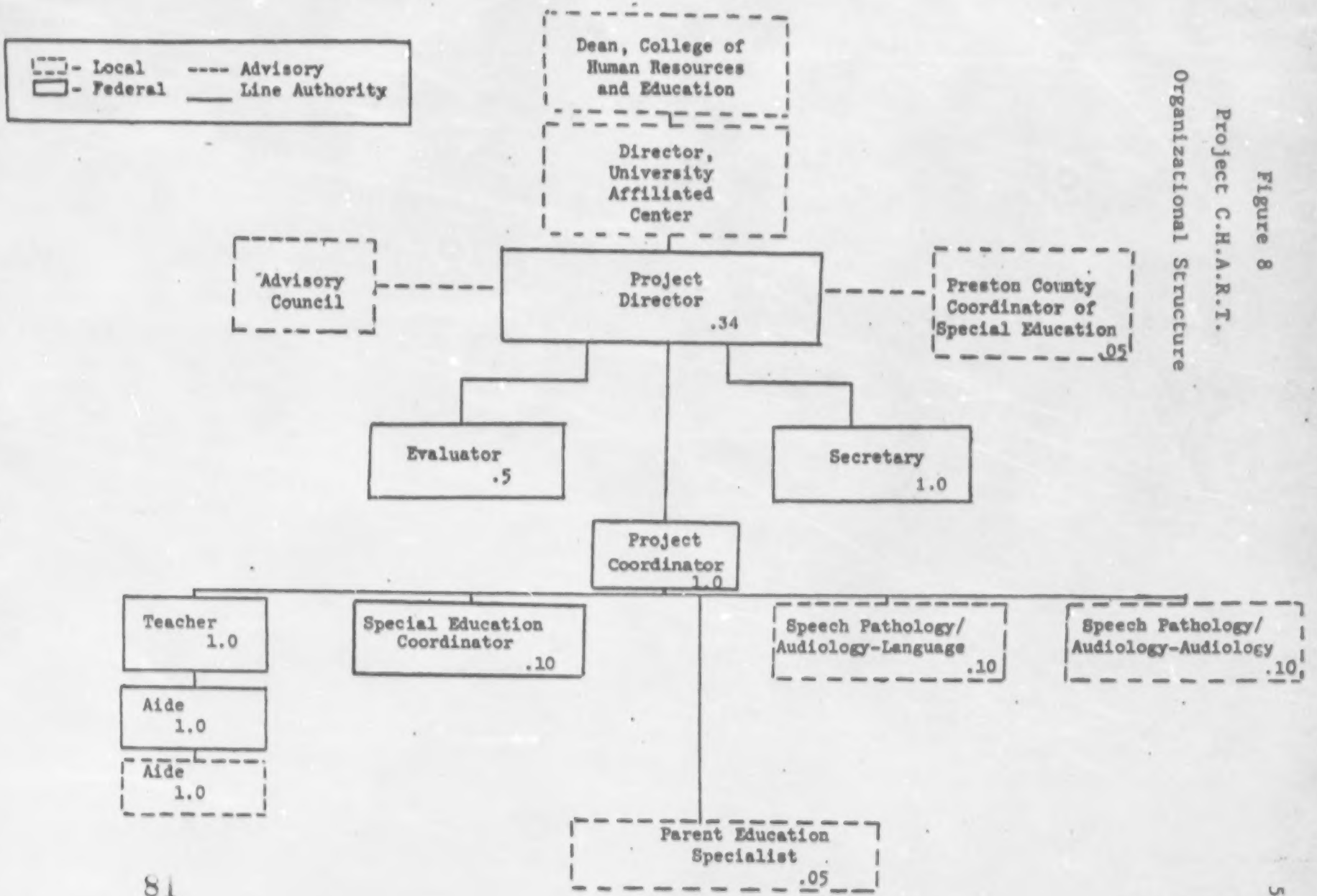


Figure 8

Project C.H.A.R.T.

Organizational Structure

4. Written procedures for agency interaction. It was originally proposed that formal networking procedures between the model and its host L.E.A. and other agencies (e.g., Department of Welfare; Easter Seal Society, etc.) be written down during the course of the model demonstration years. This never occurred, partially because the host L.E.A. had reasonably effective informal ways of networking and partly because the preference among agency representatives was typically for the non-litigious, informal approach. No one seemed especially excited about the potential benefits of writing it down, and it was never done.

5. Dates and procedures for regular project review. The project was reviewed extensively three times a year. Two such reviews were occasioned by the program performance report and continuation proposal submitted each year. The third was prompted by the needs assessment procedures implemented each yearly by TADS.

6. University human subjects clearance. An overall human subjects research protocol was approved by the University's human subjects committee at the beginning of the project. This "umbrella" clearance was supplemented by the submission of additional protocols for specific research projects within the model demonstration program as the need arose throughout the three project years.

7. Hiring and maintaining staff. Lots of hiring was necessitated by the turnover of staff (teachers, coordinators) during the first year. In addition, university-based models such as ours tend to use a good many graduate and undergraduate students who are relatively transient by definition. Thus, the

project director became adept at hiring good staff. Improved performance in this area appeared to pay off in terms of maintenance of staff as well, since there was very little turnover after the first year. Whereas three different teachers and as many coordinators had been hired by the end of Year I, the third one of each then stayed with the project for all of Years II and III.

Staff performance was monitored closely as mentioned earlier. Routine checks on the fidelity of model procedure implementation were conducted, and carefully structured corrective feedback was provided. In addition project staff operated on a management by objectives basis, with weekly objectives turned in to the project director. These served as the basis for weekly supervisory meetings with the director and proved a convenient way of prompting him to praise objective completions and rearrange resources when objectives appeared consistently not to be met.

8. Working with L.E.A. to operate program. This objective embodied early cooperative interaction with the host L.E.A. to obtain the necessary resources to initiate and maintain the program. As mentioned in previous reports, space, equipment, transportation of students, and some supplies were all provided by the L.E.A. The initial space for the program was adequate in amount, but consisted of a 50' by 12' trailer physically separated from other classes. The inclusion of the class in a large open room with regular early childhood classes in Years II and III was a great improvement over the initial location and permitted extensive mainstreaming of our children with nonhandicapped peers. The overall amount of space specifically for the model decreased,

however, and Years II and III saw cramped conditions not present in Year I. The integrated location more than compensated for the space reduction, however.

9. Developing and Implementing an Evaluation Plan. A comprehensive plan for evaluating overall model operation was completed early in Year II and implemented in Years II and III. The elements of the program evaluation plan are presented by component in Table 9. The plan called for the collection of 28 different types of information distributed across the services for children, services for parents, staff development, and demonstration/dissemination components. Of these, 13 (46%) were outcome, 15 (54%) were process. A variety of methods was used, including direct observation coding systems, checklists, rating scales, paper and pencil tests, archival records, and videotape. Administration frequencies varied from daily to annually.

In addition to the comprehensive plan embodied in Table 9, a rather ambitious controlled evaluation of the instructional procedures of the services for children component was also designed. A description of this planned evaluation is included in Appendix J.

It is probably fair to say that our performance with respect to the implementation of our evaluation plan was good to excellent. We actually collected 25 of the 28 different types of information called for, giving us an implementation index of 89.3%. Our most systematic and most strenuous efforts were in the services for children component.

In keeping with the controlled evaluation plan presented in

Table 9

Project C.H.A.R.T.
Program Evaluation Procedures
by Program Component

Services for Children

Information Collected	Type	Measure*	Method	Source	Collector	Schedule	Audiences**
1. General level of adaptive behavior	Outcome	WVAATS	Checklist	Teacher	Teacher	Sep & Jun	P,PS,AC, SEP JDRP,Prof'ls
2. Trial-by-trial performance	Outcome	UDS	Direct observation	Student	Teacher/Aide	Daily	P,PS, SEP,JDRP
3. Social interaction skills	Outcome	Social Interaction Observation Record	Direct observation	Students	Evaluator/ Coordinator	Variable; at least monthly	P,PS, SEP,JDRP, Prof'ls
4. General behavior at center	Outcome	Videotape	Direct filming	Students	Coordinator	Sep & Jun	P,PS,GP,LEA
5.Teacher performance	Process	Teacher Evaluation System	Direct observation; records; ratings	Teacher	Coordinator	Bi-weekly to annually	PS,LEA
6. Aide performance	Process	Aide Evaluation System	Direct observation; records; ratings	Aide	Teacher	Bi-weekly to annually	PS,LEA

86

(con't)

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Table 9 (cont.)

Project C.H.A.R.T
Evaluation Procedures
Services for Children

(con't)

Information Collected	Type	Measure**	Method	Source	Collector	Schedule	Audiences**
7. Programming effort	Process	PCU	Records	Teacher/ Aide	Coordinator	Bi-weekly	P,PS,AC, SEP
8. Programming cost per student	Process	Program Cost Index	Records	Business Manager	Coordinator	Annually	PS,AC,Legisla-tors,Prof'ls
9. % IEP annual goals accomplished	Outcome	WVAATS & UDS	Checklist; Direct Observa-tion	Teacher	Evaluator	Annually	AC, P, PS

*Measures: WVAATS= West Virginia Assessment and Tracking System
UDS= Universal Data Sheet
PCU=Program Contact Unit

**Audiences
P= Parents AC= Advisory Council SEP = Special Education Programs, D.O.E. GP= General Public
PS= Project Staff LEA= School District Staff JDRP= Joint Dissemination Review Panel
Prof'ls= Professional Community

Table 9 (cont.)

Project C.H.A.R.T.
Evaluation Procedures
Services for Parents

Information Collected	Type	Measure	Method	Source	Collecter	Schedule	Audiences*
1. Types of assistance needed by family	Outcome	Parent Needs Assessment Survey	Checklist	Parents	Teacher/Coordinator	At program entry	P,PS,LEA,SEP, AC
2. Degree of program involvement	Outcome	Parent/Family Involvement Index	Records	Parents	Teacher/Aide	Daily	P,PS,LEA,SEP
3. Parent ratings of satisfaction with program	Outcome	Parent Satisfaction Ratings (PSR)	Rating Scales	Parents	Coordinator	Semi-annually (Jan & Jun)	PS,LEA, SEP, GP,JDRP
4. Intensity of programming for Parent/ Family involvement	Process	Parent/Family Programming Intensity Index	Records	Teacher; Coordinator	Coordinator	Quarterly	PS,LEA, SEP

*Audiences
P= Parents AC= Advisory Council SEP = Special Education Programs, U.U.E. GP= General Public
PS= Project Staff LEA= School District Staff JDRP= Joint Dissemination Review Panel

Table 9 (cont.)

Project C.H.A.R.T
Evaluation Procedures
Staff Development

Information Collected	Type	Measure	Method	Source	Collector	Schedule	Audiences*
1. Knowledge of HCEEP	Outcome	Project Orientation pre/post Test	Paper & pencil test; oral exam	Teacher/ Aide	Coordinator	At hiring	PS
2. Knowledge of project	"	"	"	"	"	"	"
3. Assessment Skills	Outcome	WVAATS pre/ post test	Paper & pencil performance checklist	Teacher/ Aide	Coordinator	At hiring	PS
4. Curriculum Skills	Outcome	Binder use pre/post test	Paper & pencil oral exam	Teacher/ Aide	Coordinator	At hiring	PS
5. Daily measurement skills	Outcome	UDS pre/ post test	Paper & pencil;oral performance checklist	Teacher/ Aide	Coordinator	At hiring	PS
6. Parent/Family Involvement Skills	Outcome	Home Enrichment Program pre/post test	Paper & pencil; oral exam	Teacher/ Aide	Coordinator	At hiring	PS

(con't)

Table 9 (cont.)

Project C.H.A.R.T
Evaluation Procedures
Staff Development

(con't)

Information Collected	Type	Measure	Method	Source	Collector	Schedule	Audiences*
7. Intensity of staff development training effort	Process	Inservice Effort Index	Weekly objectives Survey	Coordinator	Director	During staff development activities	PS
8. Staff satisfaction with training received	Process	Inservice Effectiveness Rating Form	Likert-type rating scales	Teacher/ Aide	Coordinator	Upon completion of inservice training	PS

* Audiences
PS= Project Staff

Table 9 (cont.)

Project C.H.A.R.T
Evaluation Procedures
Demonstration/Dissemination

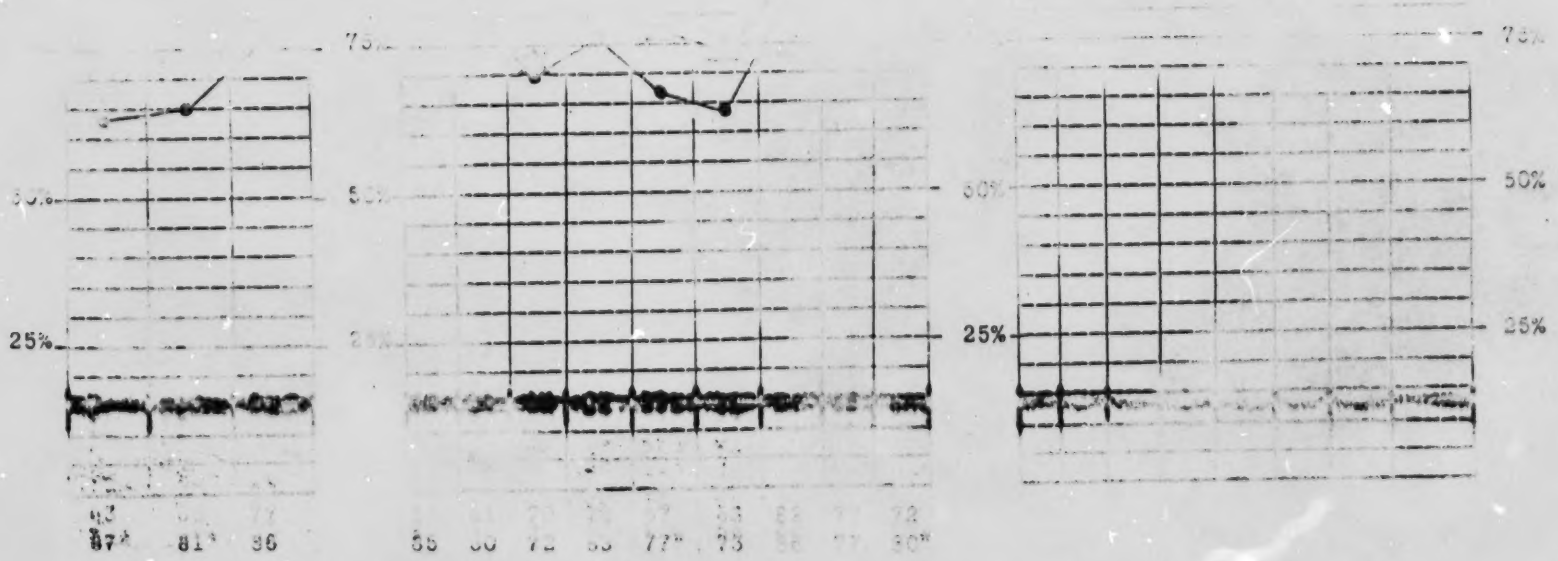
Information Collected	Type	Measure	Method	Source	Collector	Audiences*
1. Advisory meeting attenance	Process	Advisory Council Log	Record	Advisory Council	Director	PS,SEP
2. Project descriptions at professional meetings	Process	Demo/Dissem Log	Record	Staff	Director	PS,LEA,AC,SEP, P
3. Audience attending project descriptions	Process	Demo/Dissem Log	Record	Staff	Director	PS,P,LEA,AC, SEP
4. Papers published in professionals journals	Process	Paper Count	Permanent Product	Staff	Director	PS,LEA,AC,SEP
5. Slide tape presentations	Process	Demo/Dissem Log	Record	Staff	Staff	PS,LEA,SEP,AC
6. Audience attending slide tape presentations	Process	Demo/Dissem Log	Record	Staff	Staff	PS,LEA,SEP,AC
7. News stories published	Process	Article Count	Permanent Product	Staff	Director	P,PS,LEA,SEP, AC
8. Written requests for information about project	Process	Demo/Dissem Log	Record	Staff	Director	PS,LEA,SEP,AC

*Audiences
P= Parents LEA= School District Staff SEP - Special Education Programs, U.O.E.
PS= Project Staff AC= Advisory Council

Appendix J, both summative and formative data were collected to assess child progress. In addition, teacher and aide instructional behavior was monitored throughout Years II and III in order to assure they were faithfully implementing the model.

Summative data were obtained using two criterion-referenced measures of adaptive behavior: (a) the West Virginia Assessment and Tracking System (WVAATS, Cone, 1981), and (b) the Uniform Performance Assessment System (UPAS, Bendersky, Haring, & White, 1981). Pre/post changes on these measures during Year II were provided in the Program Performance Report submitted in February, 1981. Data were provided for the C.H.A.R.T. classroom and for the two UMPC classes in Richmond that collaborated with us in the controlled replication of our model's assessment and curricular procedures. Summarizing these data, it was shown that, for all three classes combined, statistically significant pre/post changes occurred over the school year in 19 of the 20 areas assessed with the WVAATS. All five areas assessed with the UPAS showed statistically significant growth for the combined classes.

The summative data for Year III showed similar patterns. For the C.H.A.R.T. classroom ($N = 7$), the mean pre/post WVAATS profiles are presented in Figure 9. It can be seen that performance increased in eight of the 12 areas assessed and remained relatively unchanged in four. Of the areas showing increases, four were statistically significant ($p < .05$, one-tailed t for correlated means). It is important to note that these data are from the direct observation administration mode rather than teacher or parent interview modes. They were



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collected by graduate students in clinical psychology whose reliability was checked by the project coordinator. Mean agreement (smaller/larger) across the twelve areas was 98.2% (range = 90-100%).

The mean pre/post UPAS profiles for the C.H.A.R.T. classroom for Year III are presented in Figure 10. It can be seen that changes occurred over the year in four of the five areas assessed. Of these changes, three were statistically significant ($p < .025$, one-tailed t for correlated means). Only the decrease in inappropriate behavior failed to reach significance.

For Richmond Class #1 ($N = 4$) the mean pre/post WVAATS profile is presented in Figure 11. Nineteen of the 20 areas were assessed. Of these, 15 showed increases over the year. Seven of these were statistically significant ($p < .05$, one tailed t for correlated means). It should be noted that, unlike the C.H.A.R.T. class WVAATS data, both Richmond classes used the teacher-as-informant administration mode. Thus, the data reflect what the teacher said about the children's changes, not changes actually observed by trained, independent observers.

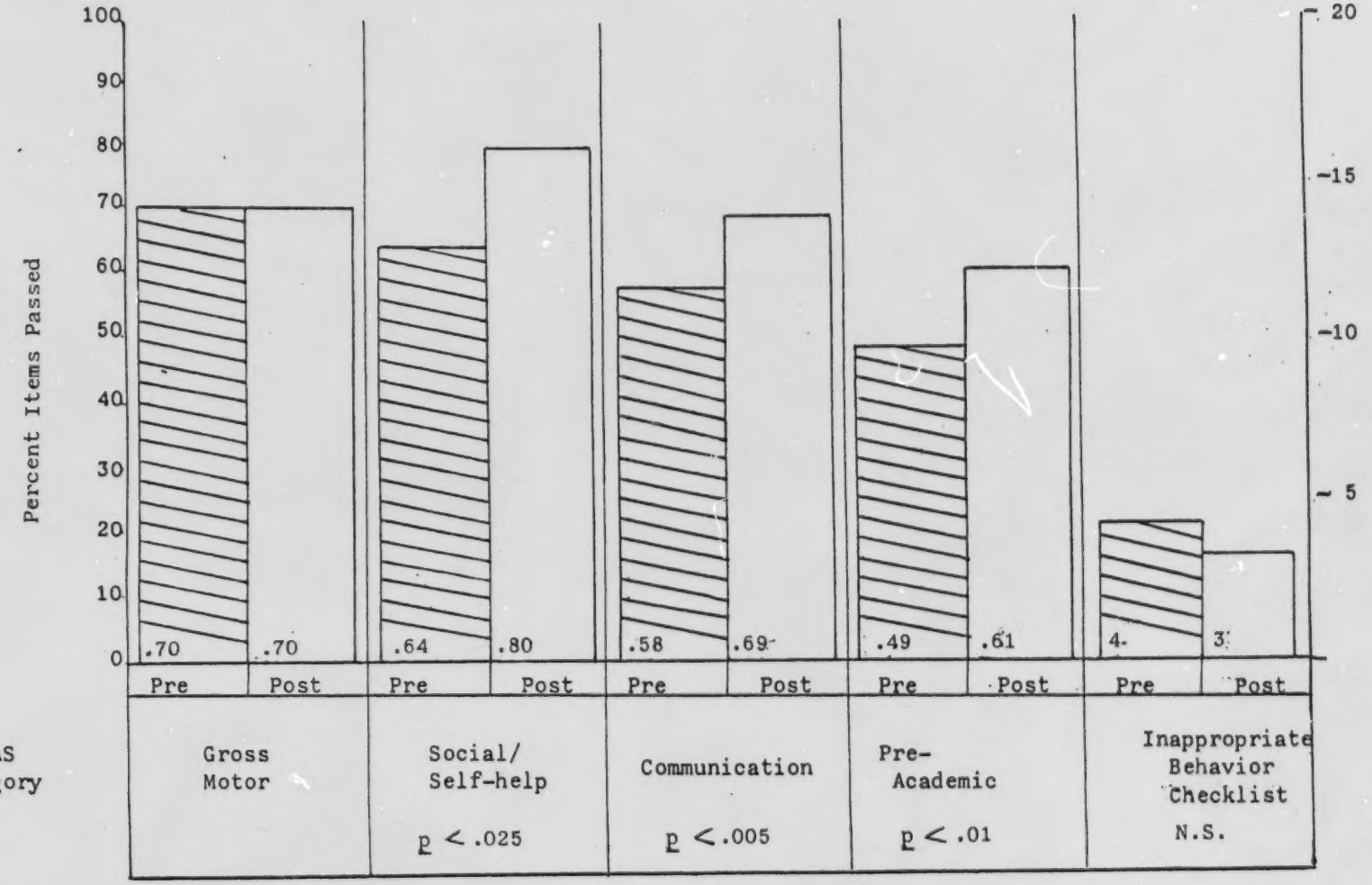
For Richmond Class #2 ($N = 5$) the mean pre/post WVAATS profile is presented in Figure 12. Again, 19 of the 20 areas were assessed. All of these showed changes over the year, 17 of which were statistically significant ($p < .05$, one-tailed t-test for correlated means).

The UPAS data for Richmond Class #1 are presented in Figure 13.

It can be seen that four of the five areas showed changes during the school year. Of these, three were statistically

Figure 10

Mean Pre/Post UPAS Profiles:
C.H.A.R.T. Classroom
1981-82



Student:

Classroom: C.H.A.R.T. 1981-82 Classroom Means (N = 7)

Pre ●——● Fall 1981
Post △——△ Spring 1982

WEST VIRGINIA ASSESSMENT AND TRACKING SYSTEM (WVAATS)

Name: Richmond Class #1 Mean
1981-82 (N = 4)

PROFILE SHEET
(Revised 2/81)

Date: _____

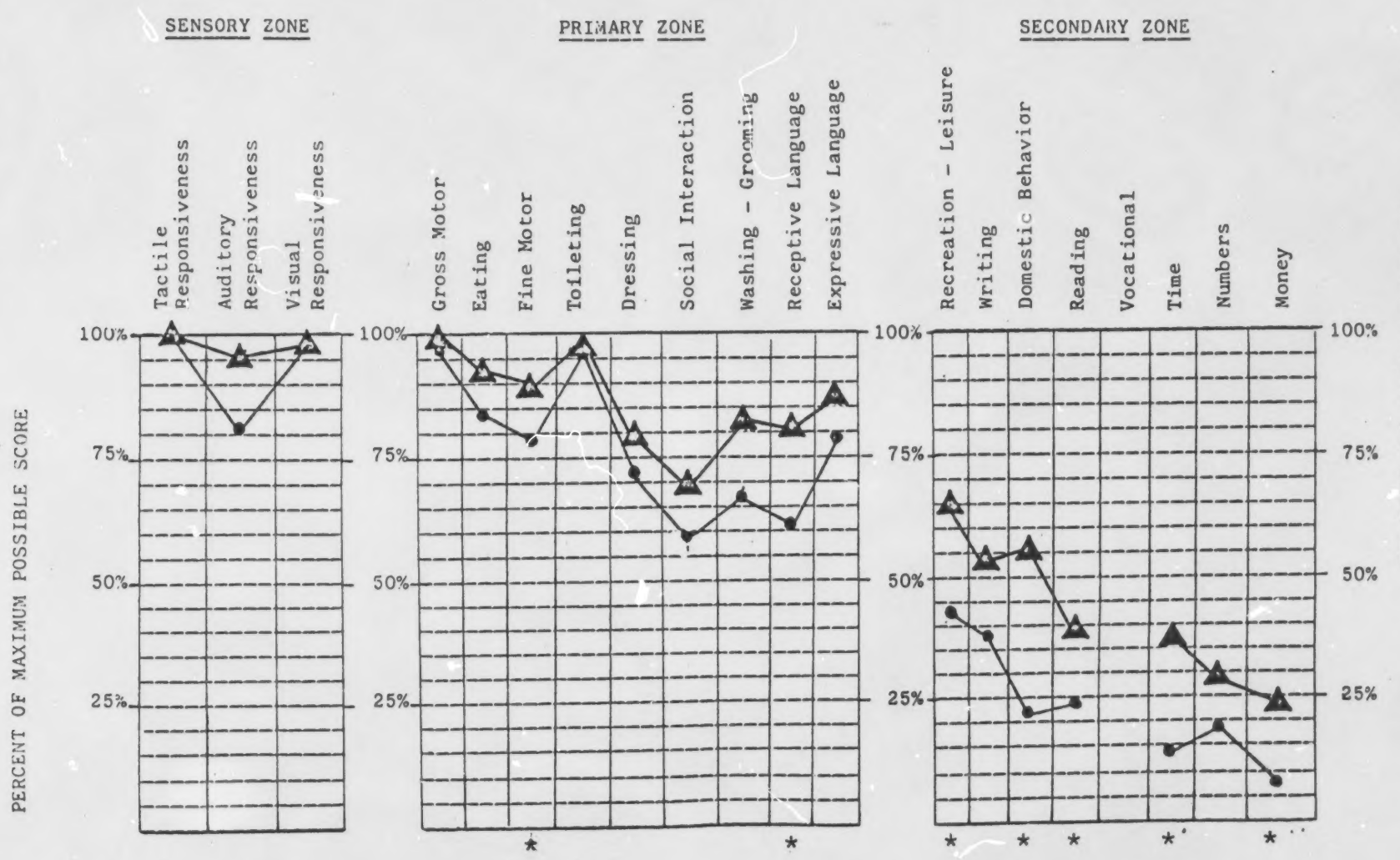


Figure 11
Mean Pre/Post WVAATS Profiles
Richmond Class #1 1981-82

Copyright: John D. Cone, 1976

* $p < .05$

Pre ●——● Fall 1981
Post △——△ Spring 1982

WEST VIRGINIA ASSESSMENT AND TRACKING SYSTEM (WVAATS)

Name: Richmond Class #2 Mean
1981-82 (N = 5)

PROFILE SHEET
(Revised 2/81)

Date: _____

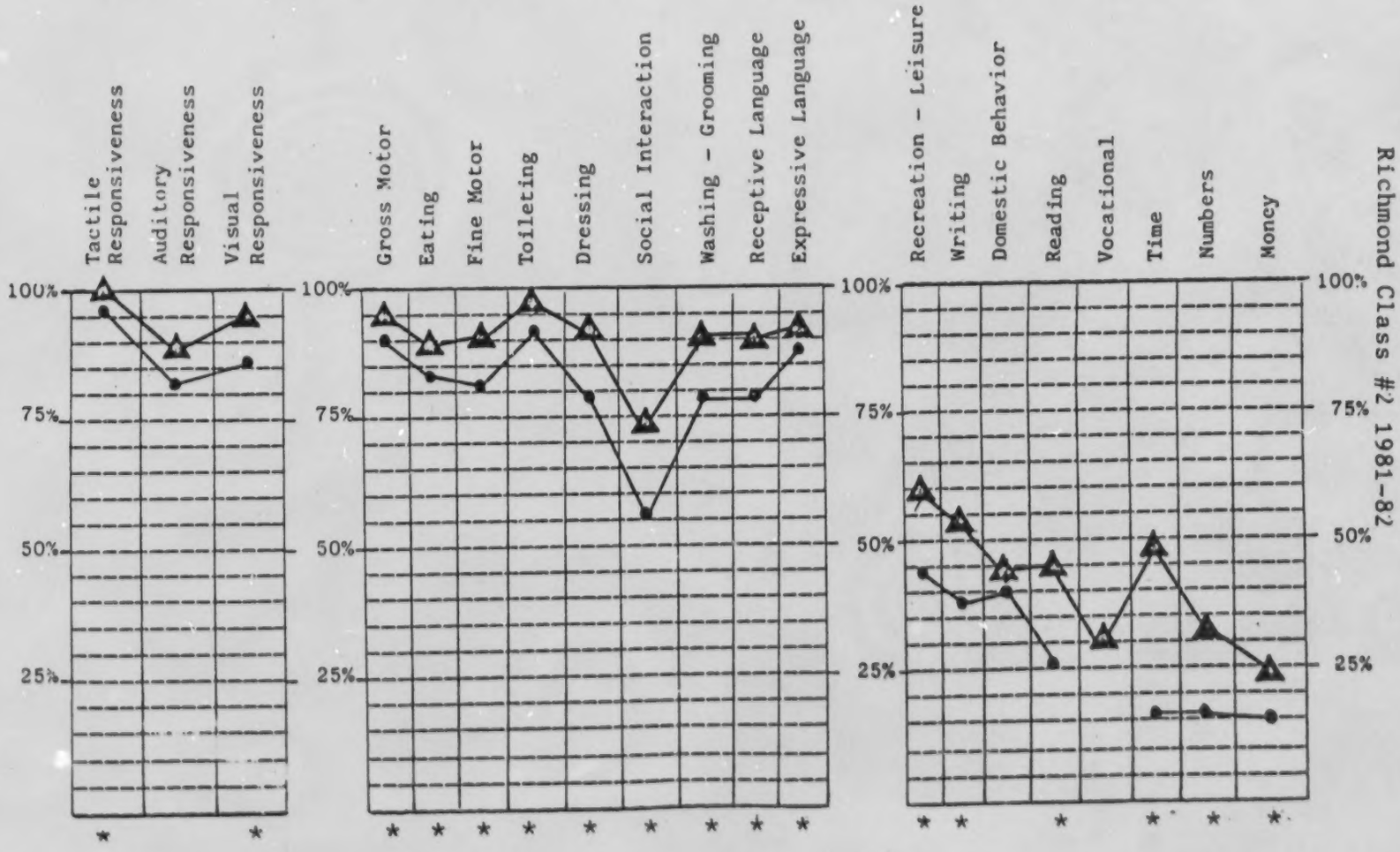


Figure 12
Mean Pre/Post WVAATS Profiles
Richmond Class #2 1981-82

* $p < .05$

Copyright: John D. Cone, 1976

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Project C.H.A.R.T. Evaluation 1981-82

UPAS Pre/Post Richmond Class #1 N = 5

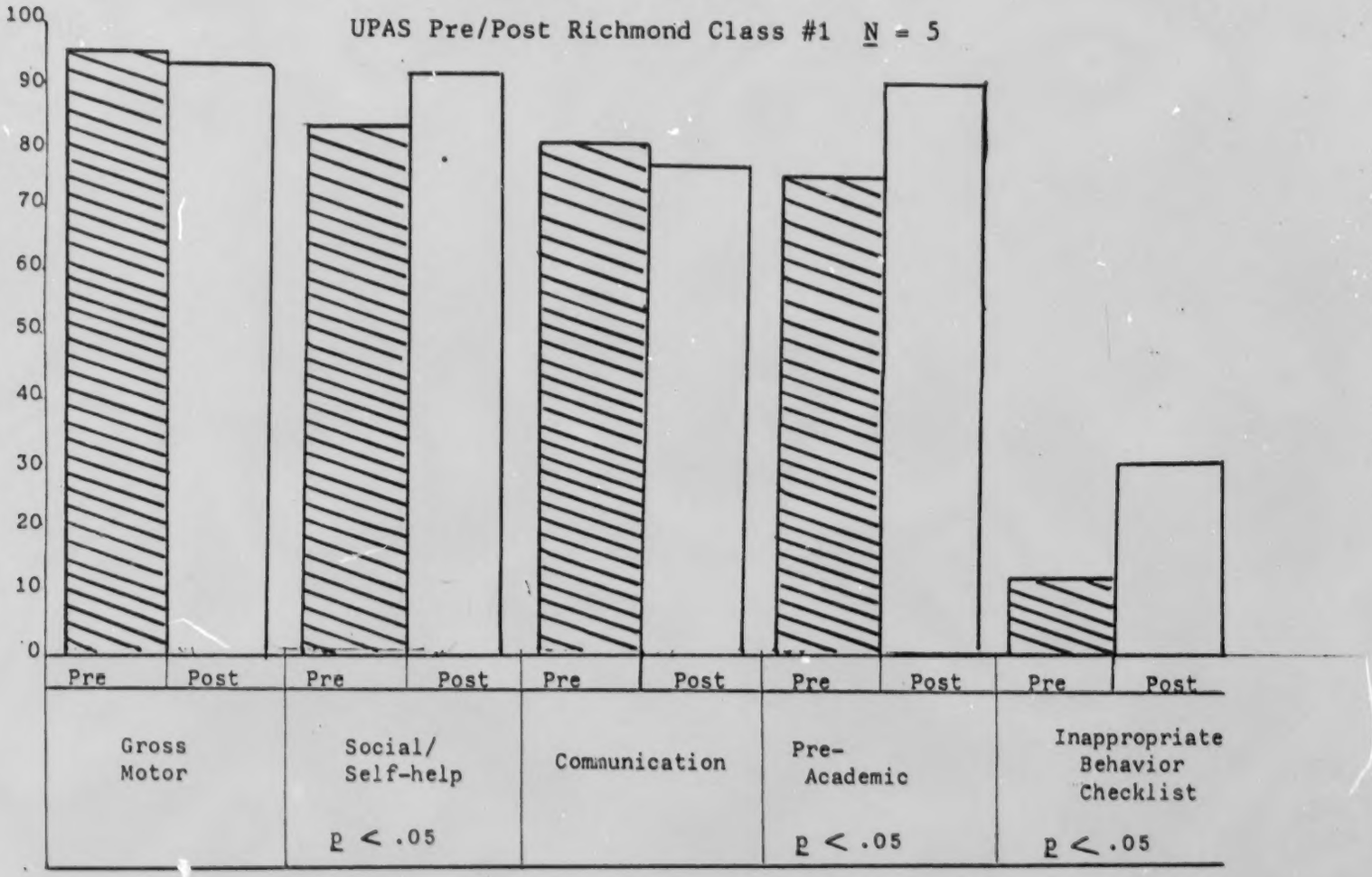


Figure 13

significant ($p < .05$, one-tailed t-test for correlated means). It should be noted that this teacher perceived her students as displaying significantly more inappropriate behavior at the end of the school year.

The UPAS data for Richmond Class #2 are presented in Figure 14. It can be seen that all five areas showed changes during the school year. Of these, two were statistically significant ($p < .025$, one-tailed t-test for correlated means).

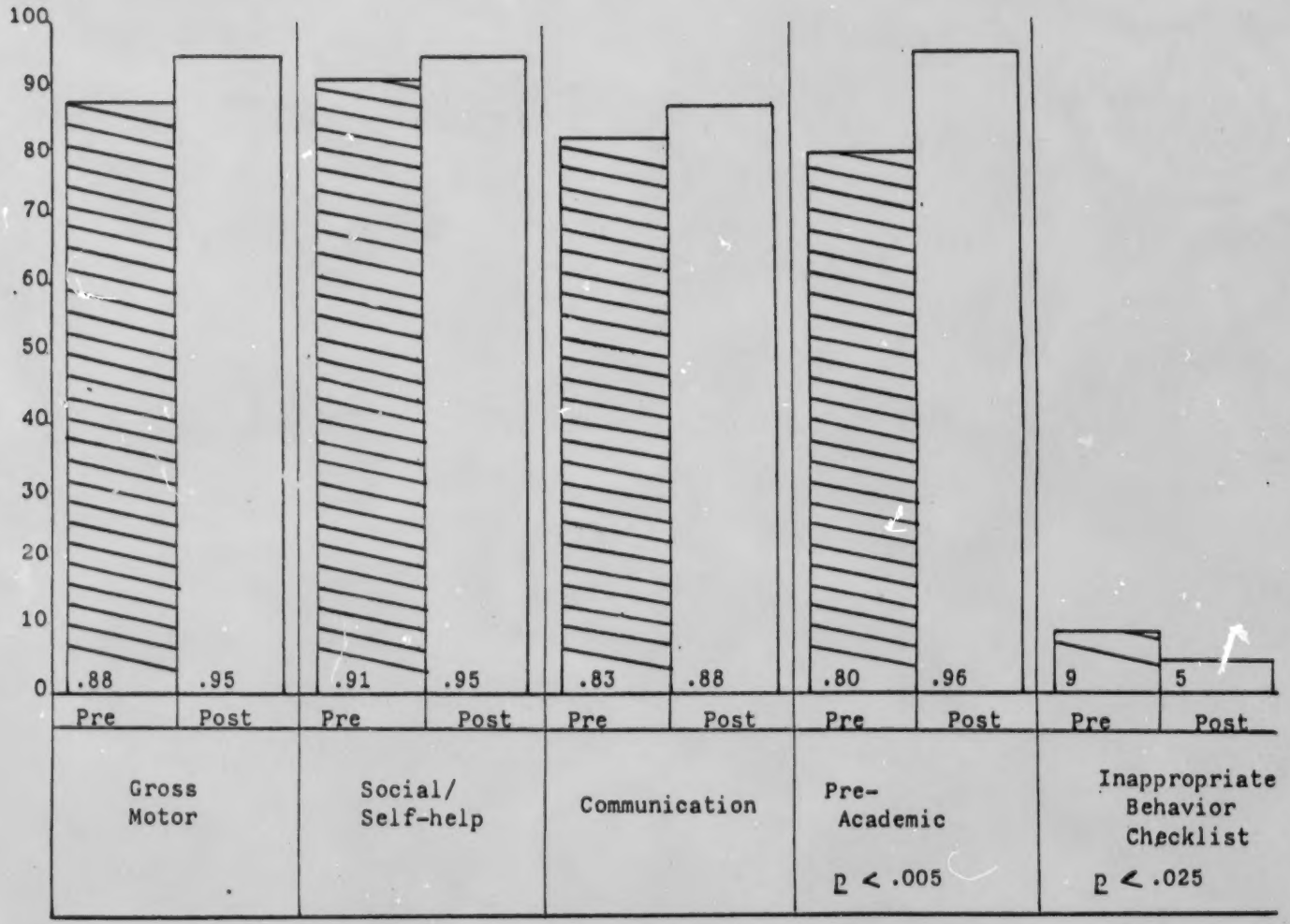
The mean pre/post WVAATS profile for the three classes combined ($N = 16$ students) for 1981-82 is presented in Figure 15. Increased performance was observed in all 19 areas assessed. (Note: Vocational skills were not assessed by all classes. Secondary Zone areas were assessed only in the two Richmond classes, so comparisons here are based on $N = 9$ students). Seventeen of the 19 increases were statistically significant at the $p < .05$ level or greater (one-tailed t-test for correlated means).

The mean pre/post UPAS profile for the three classes combined ($N = 17$ students) is presented in Figure 16. It can be seen that change occurred in all five areas assessed. Of these, 4 were statistically significant ($p < .05$, one-tailed t-test for correlated means).

Thus, summative evaluations of the children show substantial change in the expected directions over the school year. Of the total of 65 pre/post comparisons for all three classes on both measures, 36 showed statistically reliable change. These findings are generally consistent with the summative evaluations of Year II, perhaps showing slightly more improvement in Year III.

Figure 14

Mean Pre/Post UPAS Scores:
Richmond Class #2
1981-82



Student:

Classroom: Richmond Class #2 1981-82 Classroom Means (N = 5)

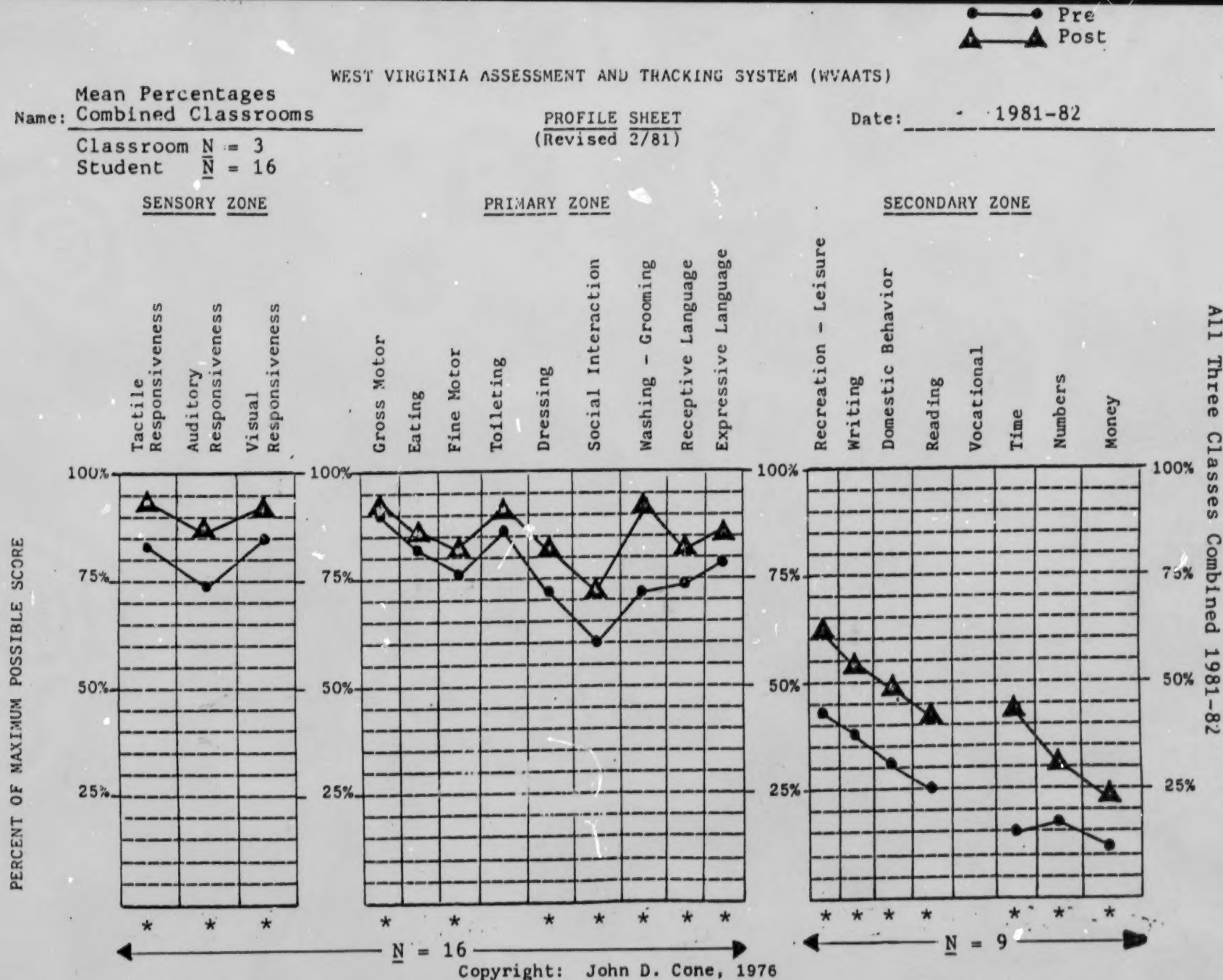


Figure 15
Mean Pre/Post WVAATS Profiles
All Three Classes Combined 1981-82

The West Virginia System

Project C.H.A.R.T. Evaluation 1981-82

U.P.A.S. Pre/Post: Mean Percentages of Richmond Classroom #1
Richmond Classroom #2
C.H.A.R.T. Classroom

N = 17

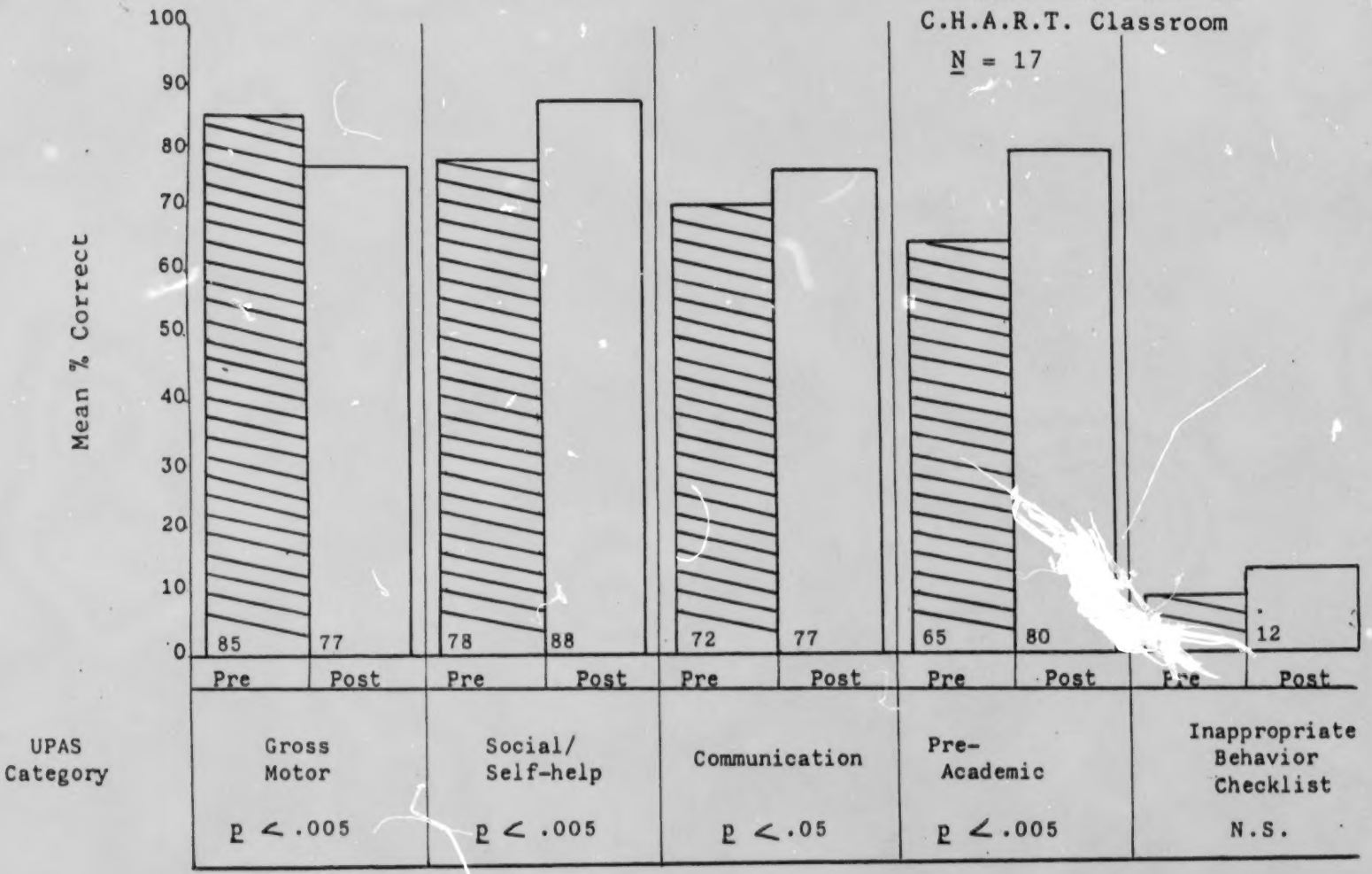


Figure 16

Of course, pre/post improvements in summative measures are not unexpected, and are open to several plausible explanations. The absence of control groups makes it difficult to know how much of the improvement would have occurred due merely to maturation and the naturally occurring changes taking place over the same period of time. It is also possible that the changes were merely a result of the general benefits of attending early education programs and were not specific to the procedures employed in the model itself.

As a check on this possibility formative data were collected in all three classrooms throughout the school year. Two types of formative data were evaluated in a multiple-baseline across areas within students design: (a) percentage of trials correct during each day's assessment periods, and (b) cumulative objectives mastered over days.

To establish whether repeated assessment, the mere passage of time, or non-specific benefits of program participation might have produced changes observed in these formative measures, baseline data were collected in several of a child's priority training areas prior to the introduction of instruction. Instruction was introduced sequentially across three training areas in multiple-baseline fashion. It should be noted that only three of a child's 5-6 training areas were included in the controlled evaluation. Included areas were randomly selected from those targeted for intervention on the child's I.E.P. Areas not included were instructed immediately and did not undergo baseline assessment.

Formative data for each of the seven children in the C.H.A.R.T. classroom are presented in Figures 17-23. Space does not permit discussion of each child's data here. There is a good deal of comparability across the seven figures, however, so attention to one of them will provide information generalizable to the other six.

The data of Child 1 in Figure 17 are fairly representative. Baselines of eight, 15 and 19 school days were obtained for fine motor, washing/grooming, and expressive language skills. Trials correct per day are referenced to the left ordinate. Cumulative objectives mastered are referenced to the right ordinate. School weeks and days within weeks are plotted on the abscissa. Four assessment trials were administered per day in the fine motor and expressive language programs, three per day in washing/grooming. Blocks of four or three trials are reported on the left ordinate to represent performance on each objective as it was mastered in sequence. Thus, the first block of four trials in the top panel of Figure 17 reflects performance on the first objective in the student's fine motor program. The next block of trials reflects performance on the next objective, and so on.

From the data in Figure 17 it can be seen that Student 1 performed no trials correctly during baseline for fine motor training. He did, however, perform three of three trials correctly for the first of his washing/grooming objectives, thus mastering this objective during the 15-day baseline period. He performed one of the four trials correctly for the first of his expessive language program objectives on Days 1, 2, 4 and 10 of baseline, but did not master the objective.

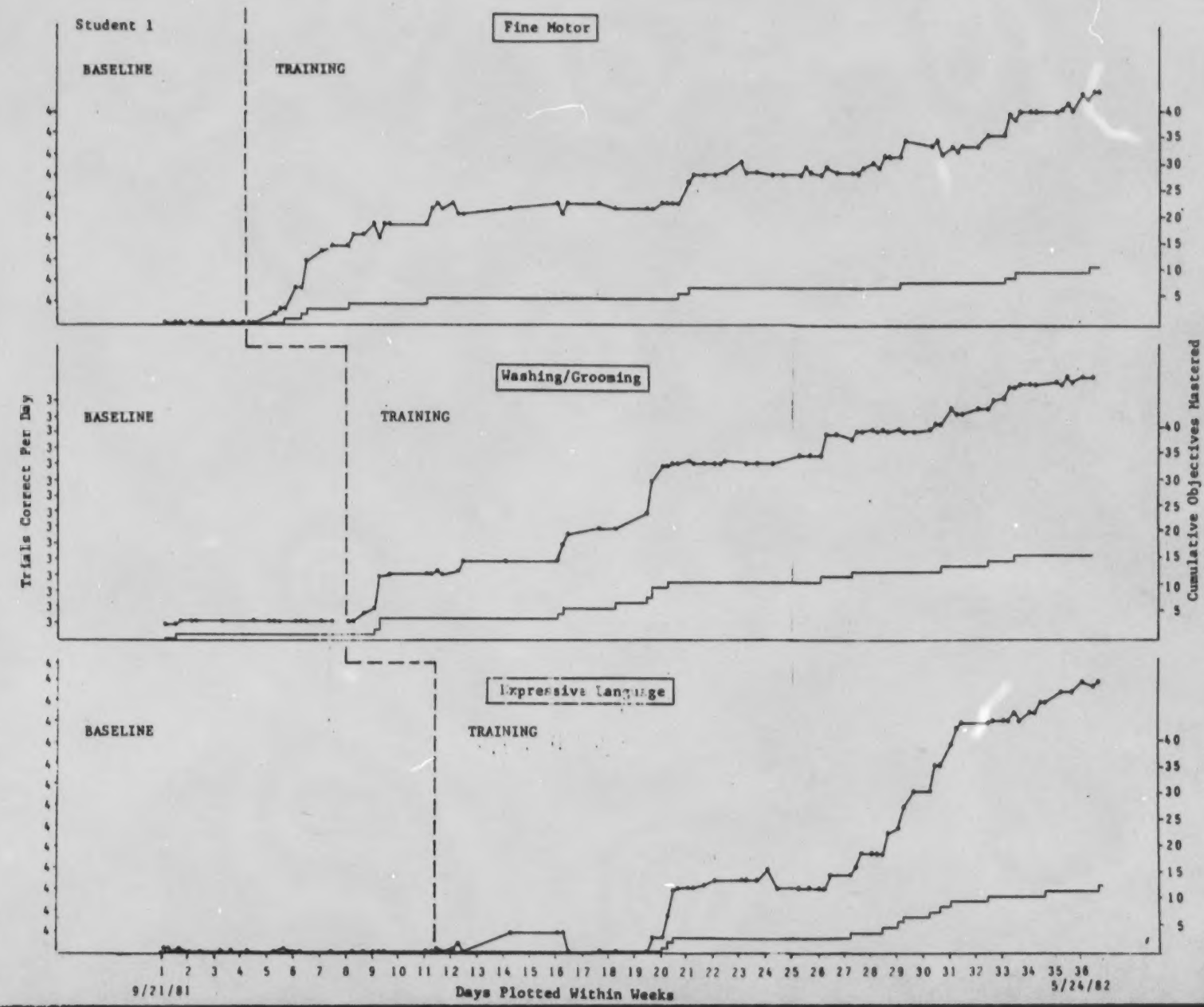


Figure 17

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 1

Figure 18

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 2

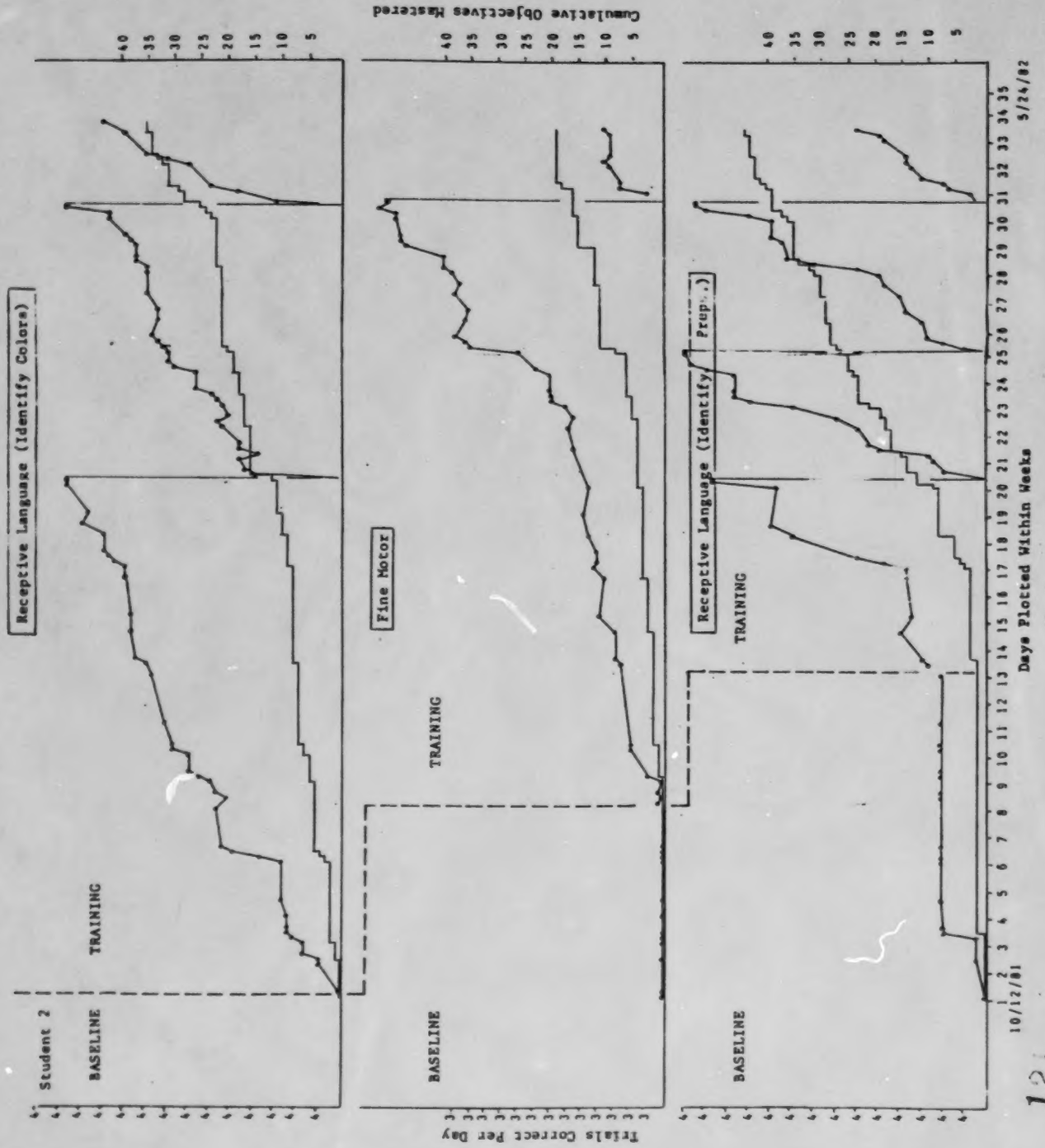


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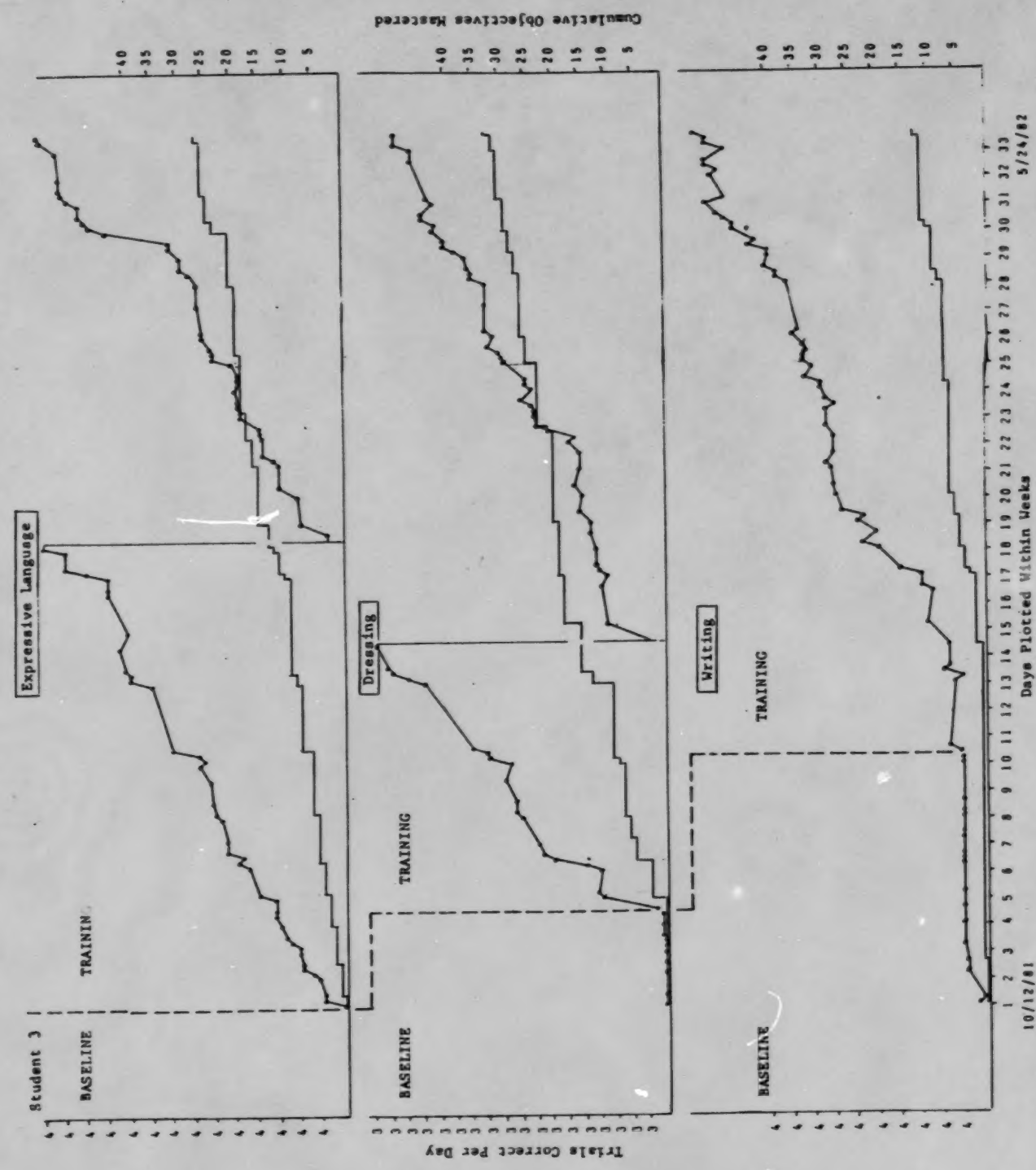
Figure 19

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 3



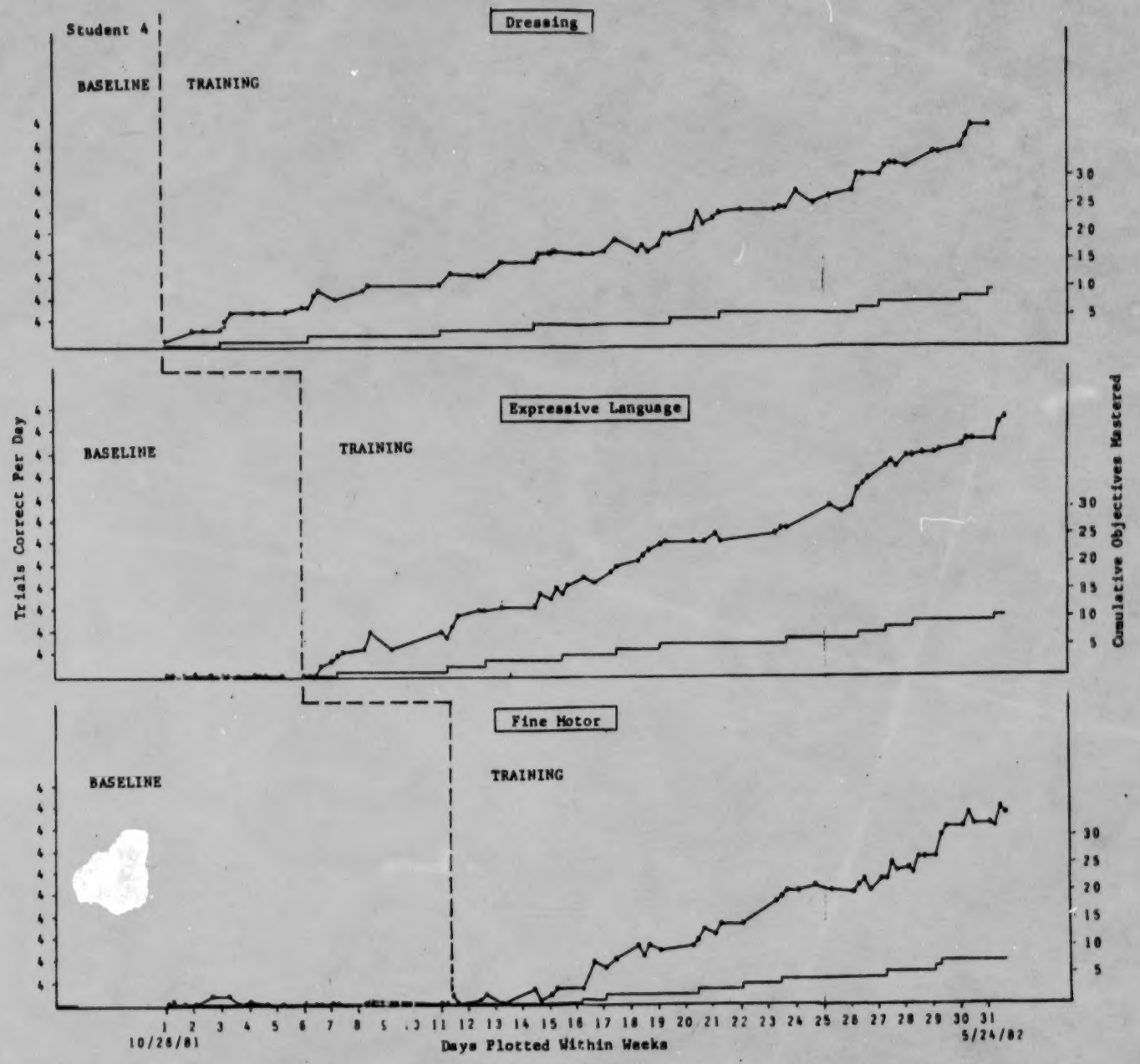


Figure 20

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 4

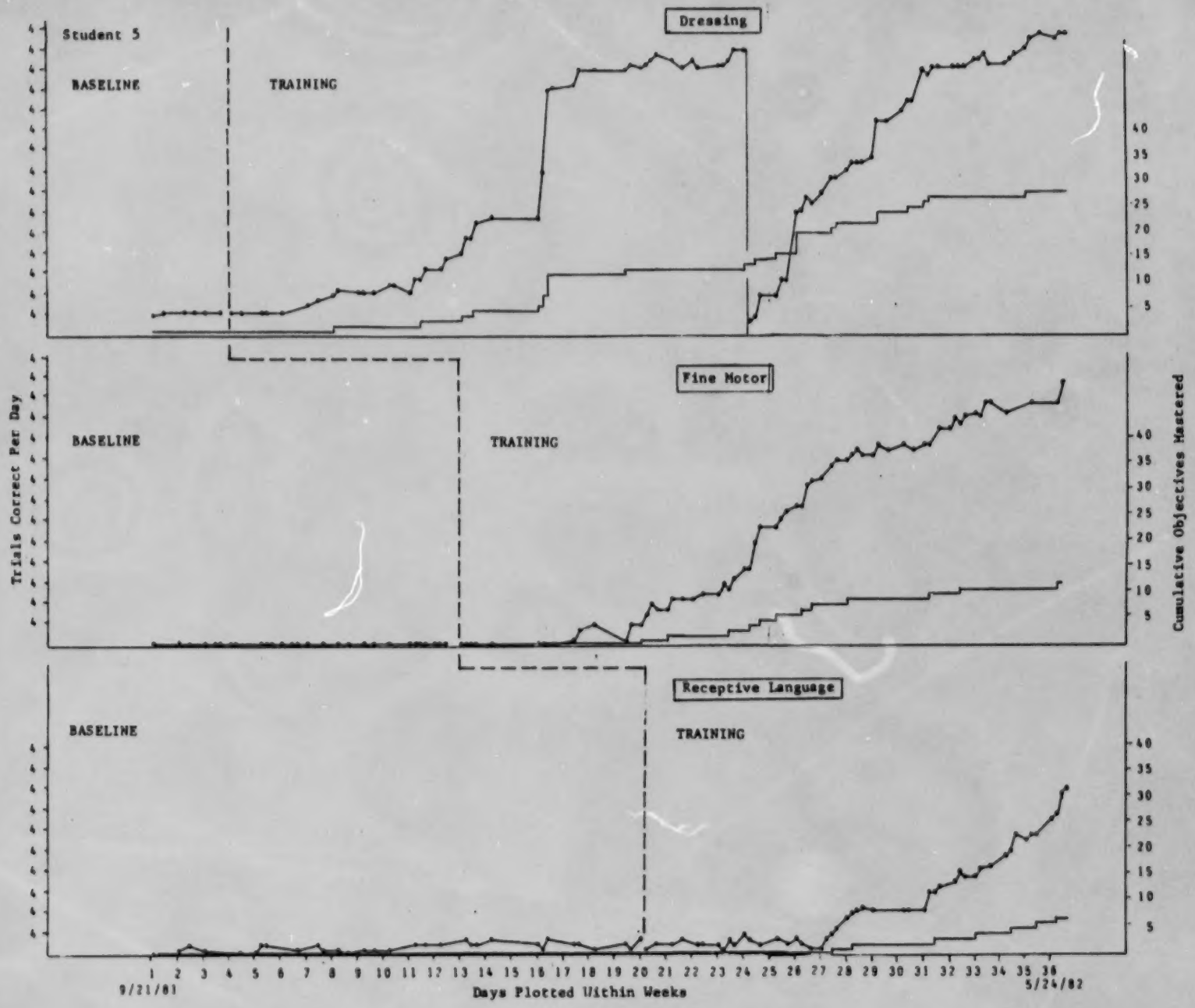


Figure 21

Daily Trials Correct and Cumulative Objectives

Mastered: C.H.A.R.T. Student 5

Figure 22

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 6

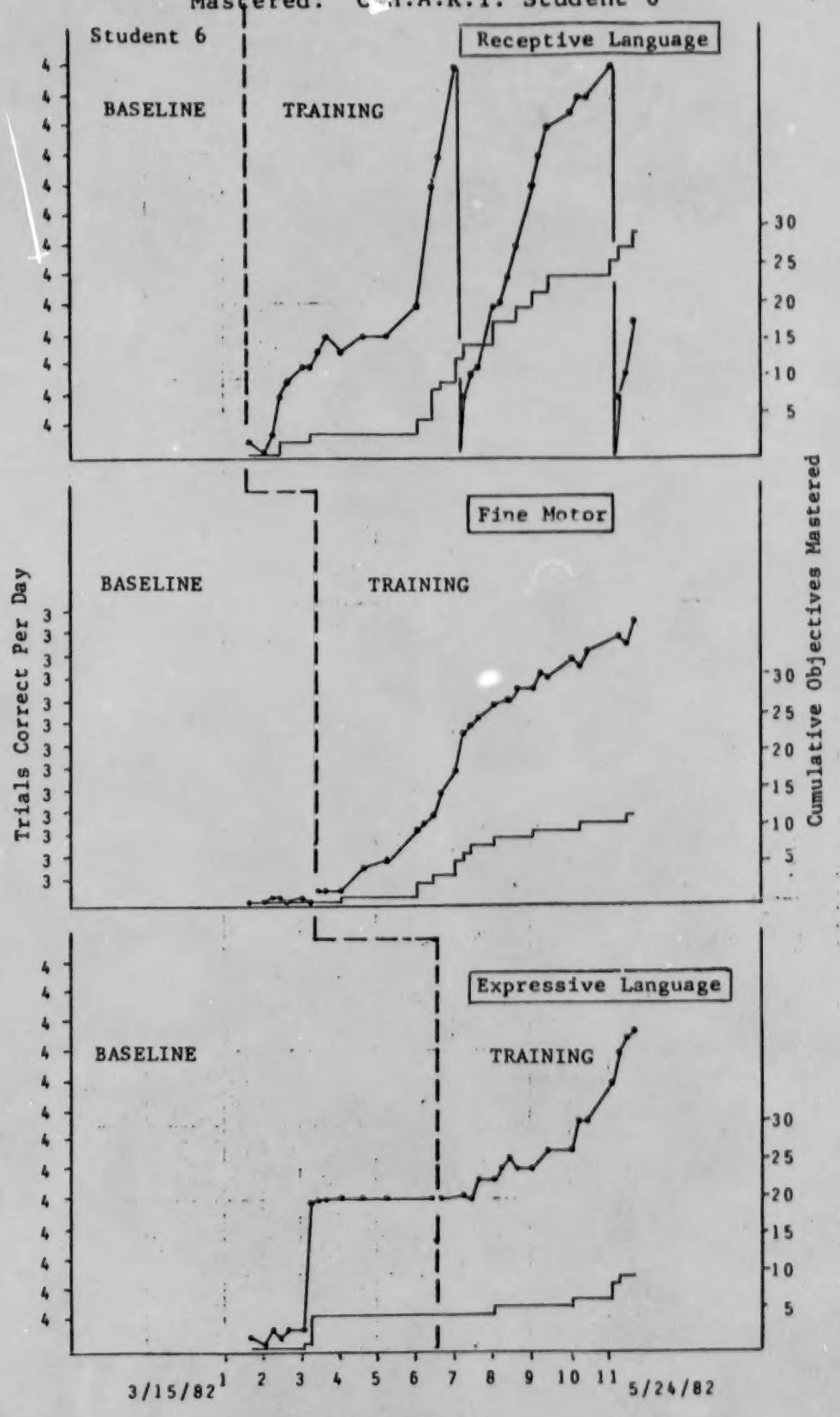


Figure 23

Daily Trials Correct and Cumulative Objectives Mastered: C.H.A.R.T. Student 7

When daily instruction using the method cards of The West Virginia System curriculum was introduced sequentially to each of the three areas, the number of trials correct per day increased rather quickly. This pattern is replicated across the other six students in the program as the data in Figures 18-23 attest. Occasionally trials were performed correctly during baseline, but students were rarely correct in consistent and improving ways until training was introduced.

It is possible, of course, to show daily improvement in trials correct and not actually master an objective. For this reason, cumulative objectives mastered are also plotted for each training area in Figures 17-23. By referring to the right hand ordinate in Figure 17 it can be seen that Student 1 mastered 10, 15, and 13 objectives in his fine motor, washing/grooming, and expressive language programs, respectively, over the 36 weeks of the school year. Thus, it would appear that daily improvement in trials correct is related in meaningful ways to the mastering of actual instructional objectives.

Similar formative data were collected throughout the year in the two Richmond classes as well. Space does not permit their inclusion here. It is sufficient to note that generally comparable patterns of low baseline performance followed by accelerations after the introduction of training at different points in time were obtained.

It is noteworthy that these patterns were replicated in the Richmond classes because instructional programs in these two classes typically involved higher level skills than those in the C.H.A.R.T. class. Whereas programs in the latter class were drawn

almost exclusively (20 out of 21) from the primary zone of The West Virginia System curriculum, Richmond class programs commonly came from the areas of the secondary zone. Among all three classes, ten of the 20 curricular areas were involved in the evaluation. The areas included and the number of programs per class are presented in Table 10.

To summarize briefly, pre/post changes were produced on both summative measures for all three classes. Most of these changes were statistically reliable, especially when pre/post comparisons were performed on the data from the three classes combined. That these changes were not due merely to maturation, assessment effects, or the non-specific benefits of simple school attendance was supported by findings with our formative data on trials correct per day and cumulative objectives mastered. Children showed no systematic change in these measures until after training was specifically introduced, despite baselines varying from eight to 19 attended school days in length. Thus it would appear that instruction was necessary for objectives to be mastered.

Of course, instruction can occur in many ways, and our interest was in the effectiveness of strategies embodied in the method cards of The West Virginia System. That our teachers used these tactics and not others was addressed in several ways. First, they were trained specifically in the direct instructional tactics included on the cards. Their training was mastery based and high levels of correct instruction were required to complete it. Performance was assessed using the Staff/Pupil Interaction Recording System (SPIRS) as described in an earlier section of this report. Second, the instructional procedure for each

Table 10

The West Virginia System

Project C.H.A.R.T.

Curriculum Areas Included in the Controlled

Evaluation in Year III: 1981-82

AREA	CLASS		
	C.H.A.R.T.	Richmond 1	Richmond 2
Gross Motor	1*		
Fine Motor	5		1
Dressing	4		
Washing/Grooming	1		
Receptive Language	5	3	1
Expressive Language	4	3	1
Writing	1	5	4
Reading			4
Numbers		5	5
Money			5
Totals	21	16	21

*Entries represent the number of different programs in each area included in the evaluation. Areas receiving training but not evaluated in the multiple baseline design are not included here.

objective is written down in simple, step-by-step language and teachers were required to read the method cards before teaching the objective and to have the card handy as a reference during actual instruction. And third, teaching staff were observed periodically throughout the year and their instructional performance was recorded by trained observers using the SPIRS. Videotapes were made of these sessions and used to provide systematic performance to the individual staff member.

The results of this staff monitoring process for the teacher and two aides of the C.H.A.R.T. class during Year III are presented in Figure 24. Comparable data for the two Richmond teachers and one aide are presented in Figure 25. It can be seen that, while variable, the performance of the C.H.A.R.T. teaching staff improved over the school year. Improvement in Aide #2 is especially remarkable. She was new to the job at the beginning of the year, and rapidly increased her skill over the first three months so that from January on she consistently produced 90% or higher teaching sequences correct. Fewer observations were available for the Richmond staff, and it was difficult to provide frequent feedback to them. Nonetheless, at least the teachers maintained reasonably high levels of compliance with the model's instructional procedures over the course of the widely separated observations.

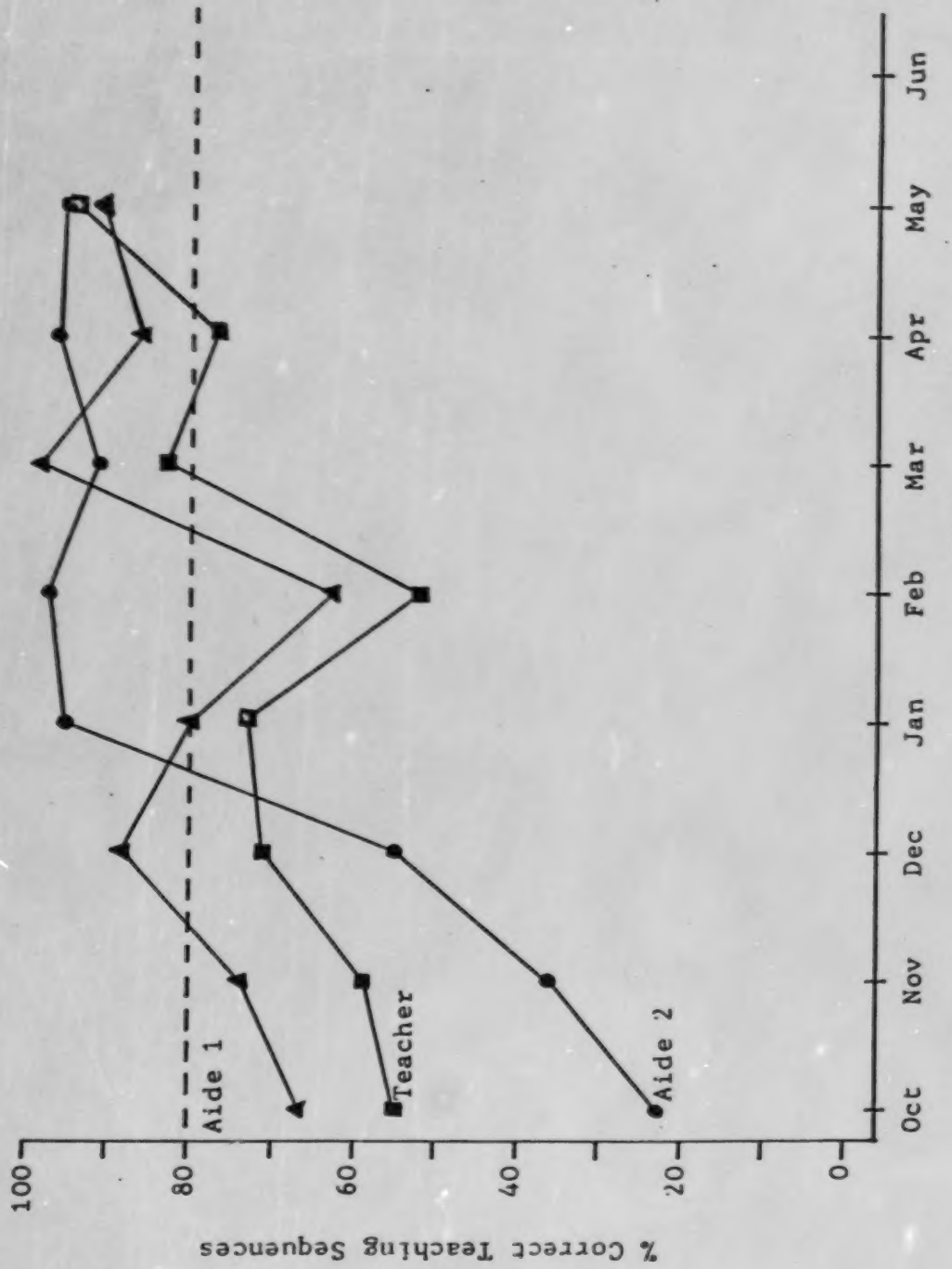
It should be noted that monitoring procedures such as these are potentially quite reactive and replete with demand characteristics. The extent to which the data they produce are representative of instruction occurring at non-monitored times is not known. It can be said that, with the possible exception of one

Figure 24

Mean Percent Teaching Sequences Correct:

Project C.H.A.R.T. Staff

1981-82



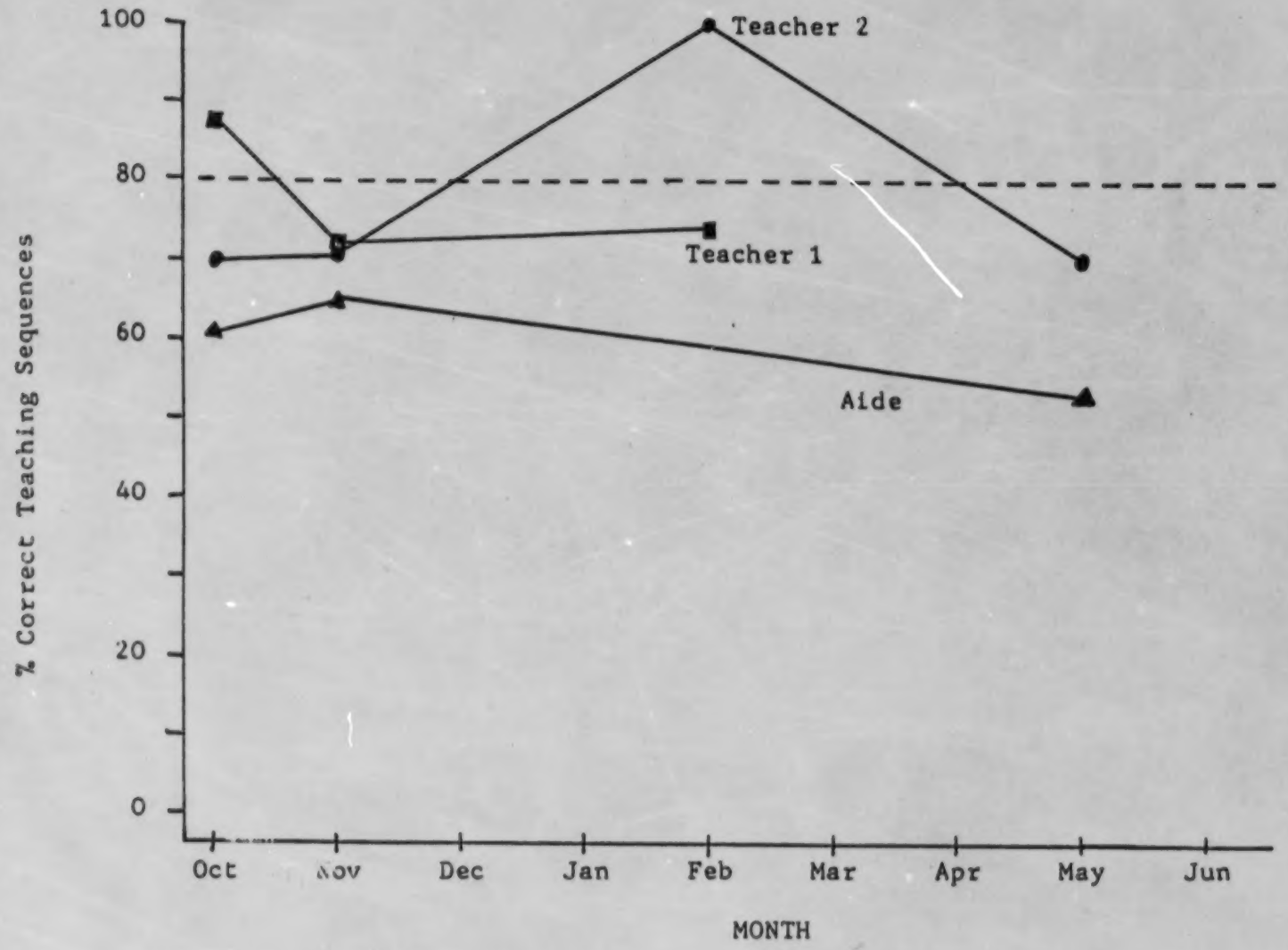


Figure 25

Mean Percent Teaching Sequences Correct:

Richmond Classes Staff

1981-82

aide, these staff members were capable of teaching in accordance with the model. Whether they consistently did so or not can only be guessed from these data.

What can be said with confidence from our overall experimental design is that the instruction in our three classes was effective in producing change. What is less certain are the specific features of the instruction that were the major contributors to the change. It is relatively likely that it was the instructional procedures embodied in the model, however, as these were what the teachers used throughout their programs, even those not included in the multiple-baseline analysis. In addition, these were the procedures the staff were specially trained to use and for which their data gathering systems had been developed. Finally, frequent observations in the classroom revealed little in the way of alternative curricular materials and/or teaching approaches.

Between Years I and II and II and III the project operated a summer program of six weeks duration. Students attended school half days and no lunch was served. Summers were optional for parents, and not all students participated. These programs were used extensively to further integration of our handicapped children with their non-handicapped peers, so an effort was made to include these latter children as well. In 1980, five handicapped and eight non-handicapped children participated. In 1981, the numbers were six and ten, respectively. The summer programs were also seen as a preventive vehicle for "not-yet-identified-as-special education" children who had minor problems that their preschool teachers thought should be ameliorated before they became extensive enough to result in

a special education label.

The non-handicapped children were assessed at the start and end of the summer sessions in both years. Pre/post changes for the eight students in the 1980 program are presented in Figure 26. It can be seen that their mean percentage correct increased in five of the six areas taught, and remained unchanged in the sixth. Similar data for the ten non-handicapped children in the 1981 program are presented in Figure 27. Here the changes were less impressive, showing growth in four of the ten areas assessed, no change in five, and some decrease in one. Part of the difference in the two years is undoubtedly due to the relatively higher entry performance of the 1981 students. A ceiling effect may have minimized the opportunity for change to be measured. The assessment procedures varied somewhat from one year to the next also, with obviously less sensitive ones used in the second year.

Pre/post mean scores (percentage correct) are presented for the six handicapped students for 1981 in Figure 28. Their data show essentially no change in six of the areas, increases in two, and decreases in two others. Similar data were not collected for the five handicapped students in the 1980 summer program, preferring instead to rely on the summative and formative measures used in the normal school year and continued in the summer.

10. Designing and Implementing a Filing System. This important objective was accomplished during Year I. The system developed then was continued throughout the remainder of the model demonstration period and proved invaluable in preparing performance reports, responding to inquiries about the model, and avoiding duplication of effort.

Figure 26

Project C.H.A.R.T.
1980 Summer School Pre/Post Assessments
Nonhandicapped Students

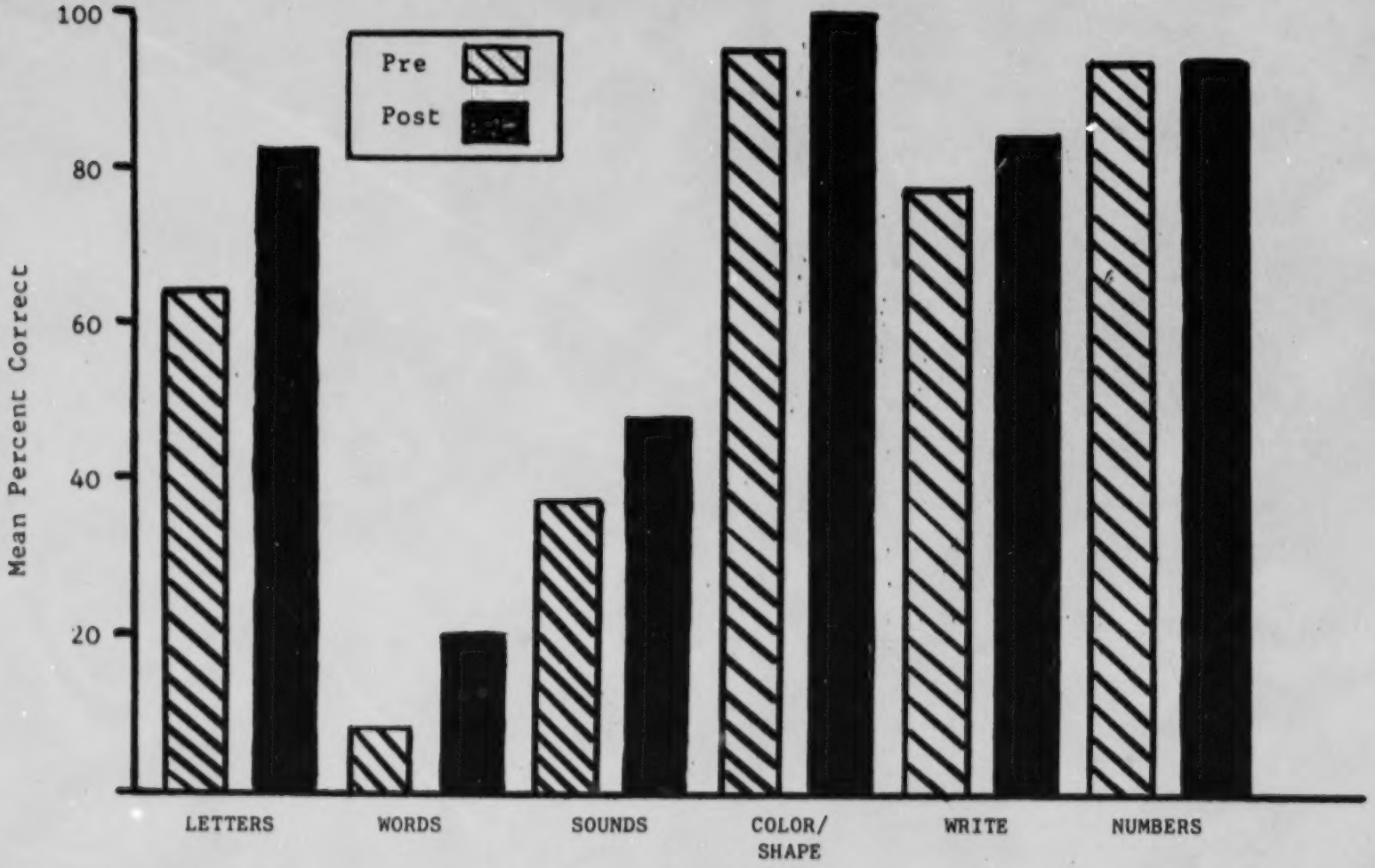


Figure 27

Project C.H.A.R.T.
1981 Summer School Pre/Post Assessments
Nonhandicapped Students

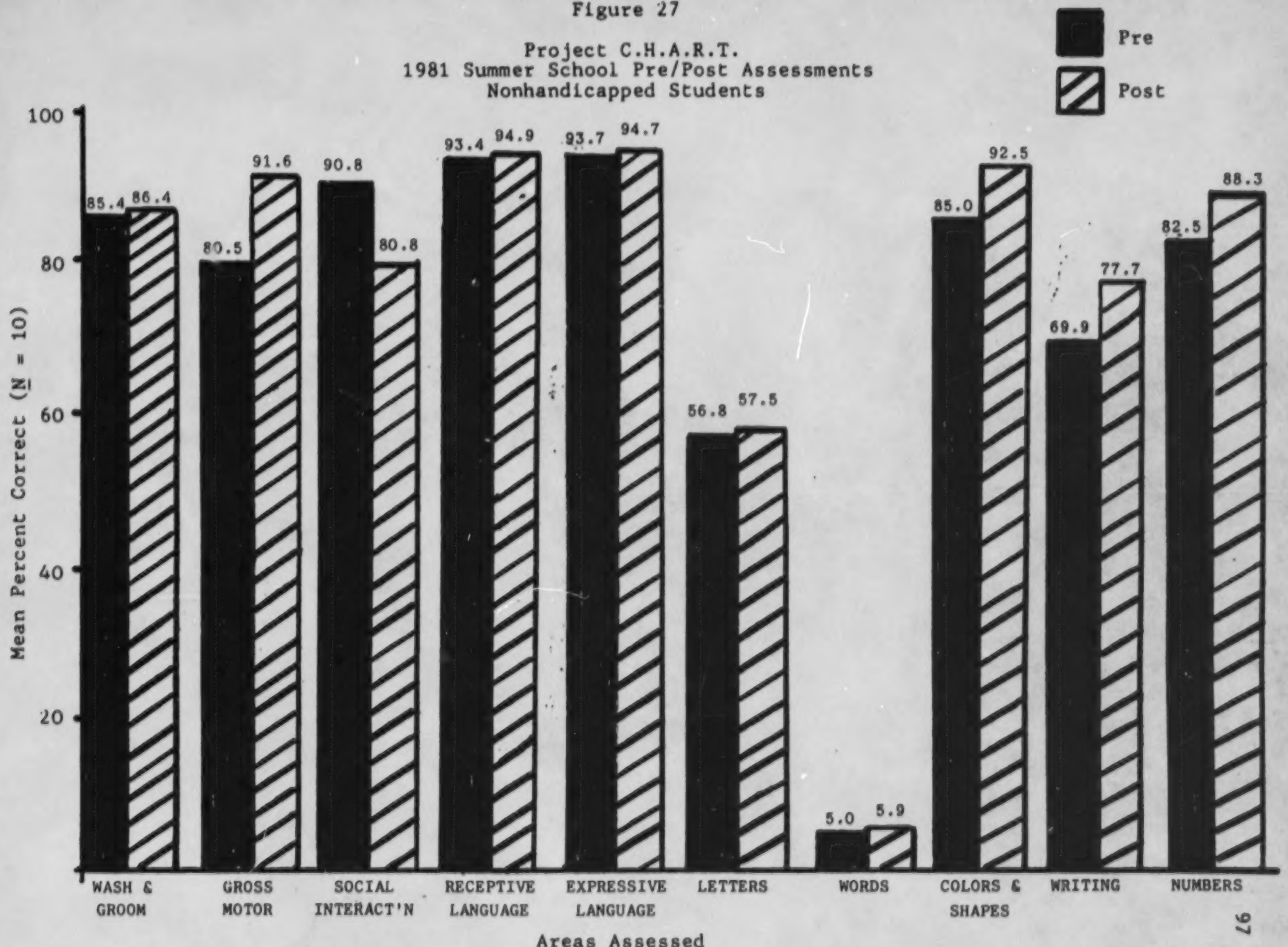
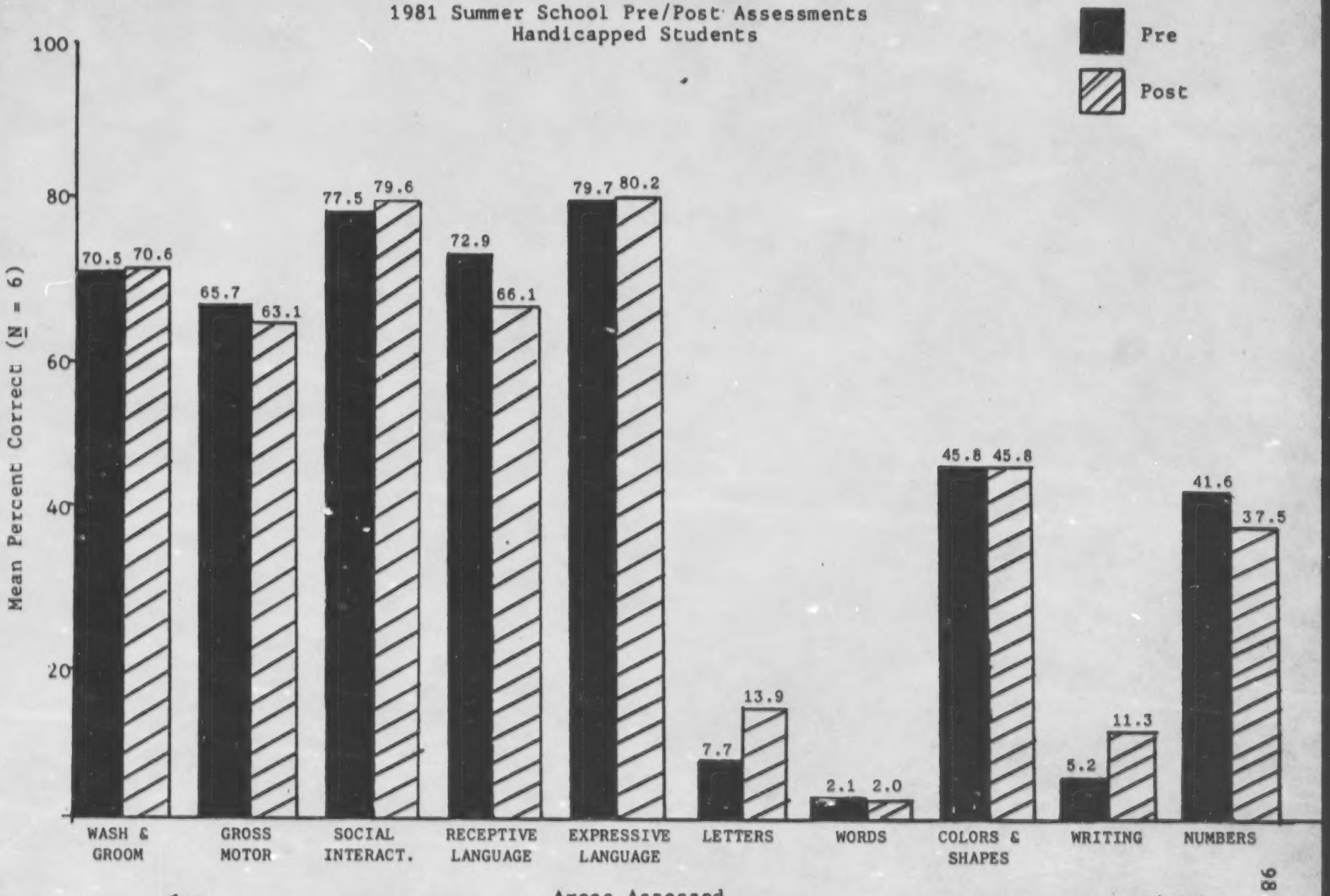


Figure 28

1981 Summer School Pre/Post Assessments
Handicapped Students



11. Preparing Continuation Proposals. Two such proposals were completed during the three-year project, one for Year II and one for Year III.

12. Preparing Reports for TADS. The project participated in thorough needs assessments in each of its three years. It also contributed jointly to the preparation of technical assistance agreements emanating from the overall needs assessment surveys.

13. Conducting Regular Advisory Council Meetings. As reported in the Demonstration/Dissemination section, the advisory council was formed in Year I. It met quarterly without fail for the remainder of the model demonstration period.

14. Meeting with the S.I.G. Coordinator. A S.I.G. coordinator was hired by the State Department of Education early in the project's second year. The coordinator became a member of the advisory council and regularly attended its quarterly meetings. In addition, the project coordinator served on a statewide task force organized by the S.I.G. coordinator to develop competencies for preschool handicapped teacher certification. Periodic meetings of this group allowed for even more contact with the S.I.G. coordinator.

Summary and Recommendations

The history, location, operating characteristics, staffing pattern, and children served in the model demonstration project funded by U.S.D.O.E. Grant #G007900512 were described, followed by a listing of the original grant objectives. Accomplishments over the three-year period of the award were then presented by program

component and by objectives within components. It was noted that the model developed by the grant has been continued by the host L.E.A.

Services for children was the most rigorously evaluated of the model's five components. Summative data are presented showing statistically significant growth in most areas assessed. Formative data collected in the model class in a multiple baseline across areas within student design replicated in two additional classrooms supported the attribution of pre/post summative changes to effects of our instructional procedures.

Products revised and/or developed de nouveau in the project included a revision of the West Virginia Assessment and Tracking System (WVAATS), curricular materials in the areas of auditory, visual, and tactile responsiveness, and a measure of parent involvement in their child's special education program. A total of 518 objectives and daily lesson plans for teaching them is included in the three volumes of curricular materials developed.

Descriptions of the model were presented at five national conferences in the U.S. and one in Spain. Eleven different newspaper articles describing the model have appeared during the three-year demonstration period.

As a part of the Handicapped Children's Early Education Program (H.C.E.E.P.), our project had the advantage of joining a network of similar projects throughout the country. The H.C.E.E.P. has developed rather sophisticated mechanisms for orienting project directors and facilitating their administration of efficiently running projects. The initial and followup

directors' meetings were very helpful in this regard, as was the technical assistance provided by TADS.

A minor negative experience for us were the reporting requirements of the funding agency. Semiannual performance reports posed serious demands on staff time, and seemed cumbersome, especially given the requirement for an extensive needs assessment each year by TADS as well. We may have made more work for ourselves than was necessary in preparing these reports, however, and could have benefitted from some instruction and models of what to include/not include at the initial project directors' meeting. In other words, semiannual reports may not be as much a problem as the manner in which we went about completing them.

It would also be of benefit if project officers would sit down with directors at the outset, outline what they see as the unique potentialities of the project, and suggest ways of emphasizing those and reporting specifically on their progress. Every project probably does not have to be all things to all children, and some effort to focus its efforts might lead to higher level products and more rapid advancement of the field. Project directors need to know that it is O.K. to have one or two truly outstanding features and just be adequate with the others.

Finally, it would be useful to distribute some form of standard program efficiency information among project directors so they would have some idea of their performance relative to others. For example, we were often mildly criticized for serving a relatively small number of children. We served them for 22 contact hours per week, however, which is relatively high for

preschool programs. Some index showing the ratio of F.T.E. staff to program contact hours by children could provide a useful way of comparing programs and alerting project directors to gross discrepancies. Indeed, at this stage in its development it would seem useful for the H.C.E.E.P. to produce multiple measures of this type and move systematically into the comparative evaluation of various types of model (e.g., rural vs. urban; L.E.A. vs. social service-based; etc.)

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Appendix A

The West Virginia Assessment And Tracking System (WVAATS)

John D. Cone, Ph.D.

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Appendix B

THE WEST VIRGINIA SYSTEM

VISUAL RESPONSIVENESS CURRICULUM

for the

MODERATELY, SEVERELY, and PROFOUNDLY HANDICAPPED

Produced by the staff of
The West Virginia System
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INTRODUCTION

This binder is to be used as an aid in teaching developmentally disabled youth. Included within it are the following components: (1) a Scope, Sequence, and Correspondence Chart which lists teaching objectives in this particular skill area and their correspondence with other assessment and curriculum devices; (2) method cards which provide step-by-step directions on how to teach each objective; and (3) a description of a universal data sheet (UDS) which could be used in charting each student's progress through the programs represented by the method cards. In addition, information is provided about the development of the overall system of which this binder is a part.

These materials have been developed as a joint effort of Project T.E.A.C.H. (Teaching Every Adolescent and Child with Handicaps) and the Statewide Assessment, Placement, and Teaching System (S.A.P.A.T.S.).* T.E.A.C.H. was a federally funded project of the Department of Health, Education and Welfare, Region III, Developmental Disabilities Office. It was administered through the University Affiliated Center for Developmental Disabilities at West Virginia University. S.A.P.A.T.S. is an E.S.E.A. Title I funded project of the West Virginia Department of Health. The combined projects were referred to as The West Virginia System. One of the principle objectives of the system is to devise educational services appropriate to severely developmentally disabled youth of West Virginia. This effort is being guided by the following seven step model:

Step	Procedure
1.	Receive and evaluate each referred child using appropriate, designated assessment instruments such as the West Virginia Assessment and Tracking System (WVAATS).
2.	Establish educational priorities for the child based on evaluation information and placement committee recommendations and initiate an individualized educational program (I.E.P.).
3.	Assess the child within each priority area, establishing program entry points, terminal program objectives, progress goals, and procedures for continuous daily measurement of progress, thus completing the I.E.P.
4.	Monitor the child's progress in each program and initiate changes if the child's performance falls consistently below the progress goal.
5.	Refer to an objectives-correlated methods-materials collection such as The West Virginia System curriculum if necessary to effect the changes indicated in Step 4.

---

* A variety of acronyms, abbreviations, and new and funny-sounding words will appear in this binder. A glossary of terms has been provided at the end to help interested readers sort out some of this confusion.

6. When the terminal objectives have been reached, re-administer the assessment device used for that training area, establish maintenance procedures, reexamine the child's educational priorities with the placement committee, establish new ones, and return to Step 3.

7. Readminister the instruments used in Step 1 at least annually and when the child leaves your classroom for another.

From the outset a basic assumption of the West Virginia System has been that the provision of special educational services, especially to severely handicapped children, can be described in terms of developing behaviors in a finite number of general areas. An extensive review of the literature led to a list of 20 such areas ranging from simple sensory responsiveness of the auditory, visual, and tactile modes; through motor, self-help, and language skills; to academic, prevocational, and recreation and leisure activities. Having delineated these 20 areas of functioning, project activities were first concentrated on developing a comprehensive assessment device which would aid in evaluating level of functioning within each of the 20 areas. The West Virginia Assessment and Tracking System (WVAATS), a 160-item instrument, was developed and initially field tested on approximately 400 children. It has been revised twice, third edition having appeared in 1981.

Presently, project activities are centered around developing curricular procedures specific to the 20 areas of functioning assessed by the WVAATS. As materials are developed, they will be arranged in binders such as this one, so that eventually 20 binders (one for each area of functioning) will be available. These 20 binders comprise what is referred to as The West Virginia System curriculum.

Although these materials have been developed so as to provide a comprehensive assessment and curriculum package, it should be noted that they also lend themselves to use as a resource. Individual method cards can be pulled from the binder to be used as needed even if another device is the basis of the educational program. Also, the Scope,Sequence, and Correspondence Chart can be used to refer the teacher to other relevant sources.

How This System Was Developed

Once the 20 skill areas were delineated, an extensive review of assessment and curriculum sources was undertaken. From these various sources, objectives were compiled, revised to correspond to the three part format suggested by Mager (1962), arranged into sub-areas, and sequenced within these. A general strategy for teaching the skills required in each sub-area was then designed and method cards written for each objective.

According to Mager, the usefulness of an educational objective is dependent upon the extent to which it communicates an instructional intent to its reader. Thus, the objective must clearly describe the terminal behavior expected of the student. Additionally, a description of the conditions (i.e., the givens) which must prevail when the behavior occurs further clarifies for the reader

those acts which will be accepted as evidence that the student has achieved the objective. By including a third section, the criterion, the reader is able to determine how well the student must perform in order to fulfill the requirements of the objective. Thus, each of the objectives in the system contains a "given" section (describing the conditions under which the behavior is to be performed), a "student" section (describing the task to be performed), and a "criterion" section (describing "how many", "how long", or to "what degree" the behavior must be exhibited).

Once the objectives from other sources were rewritten in the three-part format, sub-areas were identified. Objectives were sequenced within each sub-area according to how the particular task would be taught. New objectives then were written to fill gaps in the training sequences. To check on the reliability of the sequencing, two or more project staff members independently sequenced the sub-areas. A correlation coefficient then was computed. In the few cases where the resulting correlation was found to be less than .75, objectives were resequenced (and reworded, if necessary) so that eventually an acceptable level of sequence reliability ($\underline{r} \geq .75$) was reached. Additionally, project staff identified some objectives as "non-teaching" ones. These included objectives that were an integral part of the sequence but were more suited as assessment objectives than as teaching objectives. For example, in Running Nose, a sub-area in Washing and Grooming, two cards refer to behaviors which indicate awareness on the student's part (i.e., wrinkling his/her nose or rubbing running nose with arm or hand). It is important to assess this awareness but not to teach these particular behaviors. Cards such as these have been included at the appropriate points in the sequences and are marked "Assessment Only."

A team of people experienced in working with developmentally handicapped children then began to develop method cards for each teaching objective. The team included teachers of handicapped children in institutions and county classrooms throughout the state, as well as graduate students in psychology, special education, educational psychology, and speech pathology and audiology at West Virginia University. Some of the method cards were modeled after other curriculum sources, while others were developed on the basis of the experience of the particular project staff member responsible for the sub-area.

In order to assure some consistency among the cards, guidelines were written (Appendix A). The basic training paradigm selected depends on a one-to-one student-teacher ratio, although many of the objectives can be taught in small groups without seriously decreasing the effectiveness of the strategy. The developers of the program realize that most teachers of the handicapped do not have adequate adult assistance to train their students independently. Suggestions for organizing the training so as to facilitate one-to-one instruction are given under the heading Meeting Certain Inevitable "Challenges" (page 10).

As inspection of the guidelines reveals, a particular sequence of prompts was adopted for use with most of the training. This sequence has been shown in the literature to be effective for training handicapped children (cf. Rosenbaum & Breiling, 1976). Basically, this sequence includes a progression from minimal prompting (e.g., a command or gesture) through maximal prompting (e.g., actually physically assisting the student in completing the task). Further explanation

of the card format is given in the following section.

How to Use the Cards in This Binder

The reader will recall that the method cards in this binder can be used in two major ways: As a curriculum in its own right; as a resource for other curricula.

As a Curriculum in its Own Right

When used as a curriculum in its own right, the following procedures should be adopted:

(1) Administer the WVAATS or another assessment device to determine the student's level of functioning. Based on the results of the assessment, complete a student profile (Appendix B) to be used to identify the sub-area(s) in which training will begin. The decision to begin training in a particular area will rest largely on 1) what skills are most needed for day-to-day living and 2) what areas are functioning at the lowest level. For example, a student's profile may indicate minimal skill in Using Numbers. However, if several skills in the Eating area have not yet been mastered, training in Eating probably would begin prior to training in Using Numbers. The selection of priority training areas probably will not be accomplished in a completely mechanical fashion. The active involvement of the parents and child (if possible) together with other professionals of the placement committee will be needed to supplement assessment information.

(2) Locate the objective within the designated sub-area which corresponds to the student's level of mastery as indicated by the assessment information you have compiled.

(3) Either begin training, using the method prescribed on the method card which most closely corresponds to the student's mastery level...(Most assessment devices will provide only rough estimates of where training should begin. It is more desirable to begin with an objective the student has already mastered than to begin at a level which is too advanced.)

(4) Or, in cases where the number of objectives within a sub-area is quite small (e.g., three to five), begin training on the first objective of the sub-area with the first method card.

As a Resource for Other Curricula

If the program is to be used as a resource rather than a curriculum in its own right, appropriate method cards can be pulled as needed. For instance, suppose a student is being toilet trained with the procedures developed by Foxx and Azrin (1973). Up to this point, satisfactory progress has been made. However, you now find the student is having difficulty mastering a particular step

in the training sequence. By checking the Scope, Sequence, and Correspondence Chart, locate the objective which has just been mastered by the student. Now find the objective in the sequence that corresponds with the step in the Foxx-Azrin program the child is having difficulty mastering. There should be several objectives between these two points in the sequence. Starting with the next objective after the one already mastered, select its corresponding method card and follow the procedures listed on it. When the student is once again making progress, you may return to your original program or continue through the method cards in the TPSS sequence, whichever seems more desirable.

Information regarding the functional aspects of the cards is provided below.

Functional Aspects of the Method Cards

Inspection of the method section of the cards reveals the following:

(1) Each task (i.e., objective) is broken into step-by-step procedures.

(2) The first step, designated the prestep, is actually an assessment step which "sets up" the task as described in the "given" section of the objective. It provides an opportunity for the student to demonstrate competence prior to any training. As previously mentioned, the lack of complete correspondence between assessment devices and the objectives within each sub-area makes it difficult to pinpoint the student's exact mastery level. The inclusion of the prestep prevents unnecessary teaching of a task which has already been mastered.

(3) The method is designed to "flow." In other words, at no point in the procedure is the trainer left without directions on what to do next. This requires each step to include directions on what to do if the student is correct, if the student does not respond, or if the student is incorrect. Exceptions include cases where an incorrect response is equivalent to a "no response" and cases where the trainer is referred to another step for a correction strategy.

(4) Several frequently used terms require further explanation:
Reinforce. Whenever the student responds correctly, the trainer is instructed to "reinforce", i.e., to reward the student so as to increase the chances that the student will respond correctly again. This reinforcement should occur immediately, i.e., within 1-2 seconds after the response, so as to be maximally effective.

Although food and praise typically act as reinforcers, it cannot be assumed that this is always the case. The effectiveness of the program depends in large part upon finding "the right reinforcer(s)" for the student. This can be accomplished by observing the student or by conferring with the student's caretakers, trainers, family, or other individuals with whom the student is in close contact. A more valid procedure, albeit also more time consuming, is to "test"

the student yourself. For instance, present the student with several different types of food which you suspect will function as reinforcers. Allow the student to pick only one from the group. After this is done on several occasions and with several different foods, you should have a valid index of which foods are effective reinforcers for this particular student. These foods then are made available to the trainer to be dispensed to the student during training sessions whenever a correct response is observed. To assess the effectiveness of smiling, touching, and praising as reinforcers, present the student with each of these stimuli on separate occasions (i.e., smile, touch, and praise the student, at different times). Watch the student's reaction. If the student responds positively (i.e., smiles back and/or repeats the behavior which occurred immediately prior to your smiling, etc.) use these as reinforcers during training also. Remember, however, that reinforcers (both tangible ones such as food and the less tangible ones such as smiles) can lose their effectiveness. The alert trainer is constantly assessing the effect of the rewards s/he is presenting and is prepared to present alternate reinforcers when necessary.

When training first begins on a particular objective, the trainer will want to reinforce every correct response. Gradually, however, reinforcers should be reduced so that the student is required to perform correctly two to five times before receiving a reward. This "intermittent schedule of reinforcement" has been found to maintain higher rates of responding than "continuous reinforcement schedules" where every correct response is reinforced. It is probably best to think of training as going through acquisition and maintenance phases. During the first, reinforcers should follow every correct response. When mastery has been reached, the maintenance phase is entered and intermittent schedules should be employed.

Model. To model is to demonstrate the behavior for the student. It is important to have the student's attention before beginning to model the task. Generally it is helpful to perform the task somewhat more slowly and deliberately than normal. Also, other students can often be used as models.

Signal. The word "signal" has been used in many of the procedures to indicate that hearing is not a prerequisite for learning via the method described. A "signal" can be a vocal command, a gesture, or sign language. Thus, any effective way of directing the student is a signal.

Prompt. To prompt is to assist the student in performing the task. Normally the sequence of prompts included in the procedures is from a minimum to a maximum amount. Thus, a verbal prompt (such as "___, now take the cup in your hand") usually would be

used before a physical prompt (actually taking the student's hand and physically manipulating it so that the cup is held). The important point to remember when using prompts is that they must be reduced gradually. With verbal prompting, this would mean shortening the amount of verbal direction given the student on each trial; with gestural prompting (such as pointing), less of a gesture would be made on each trial; and with physical prompting, the force or duration of the prompt would be lessened with each trial. A common mistake is to withdraw assistance too rapidly. A good sign that this has occurred is a breakdown in student performance. As indicated on the cards, the procedure to follow when this happens is to return to the last effective level of assistance, reinforce a correct response, and then begin decreasing the assistance, but more gradually than you did previously.

Informative Aspects of the Cards

In addition to the step-by-step procedure outlined for teaching the objective, each card contains the following information:

(1) the skill area to which the objective belongs (one of the 20 previously mentioned)

(2) the sub-area to which the objective belongs within the skill area

(3) the number of the objective. As mentioned previously, each sub-area is numbered independently, and is arranged according to a training rather than developmental sequence.

(4) the objective itself (in the three part format described previously)

(5) the mastery criterion (indicating how the trainer is to determine if the student has mastered the objective)

(6) the prerequisites. These include abilities such as vision and hearing which a student must have in order to be trained in the manner prescribed on the card. If one prerequisite can be substituted for another, a line is drawn between the two with an "or" written on it. It is important to remember that the cards can be adapted to meet a particular trainer's or student's needs. Thus, if the student does not have one of the prerequisites indicated on the card, the teacher/trainer should examine the card and decide if the method can be altered in some way to make it applicable for the particular student in question. Also, it is often necessary for the student to have developed a certain level of fine or gross motor coordination in order to achieve the objective. Administering an assessment device such as the WVAATS prior to training should give the teacher/trainer a fairly reliable idea of the student's

level of motor functioning. Levels of motor coordination have not been indicated as prerequisites since discretion and individual judgment must be used to determine the appropriateness of teaching a particular objective at a particular time. If training is begun and then it is discovered that the student does not have the necessary skills to master the objective, the teacher/trainer can always stop training on that particular objective, go back and train the necessary skills, and then return to the original objective and complete training on it.

(7) the student grouping. A double asterisk is used to designate the best trainer-student arrangement for using the teaching method; a single asterisk indicates alternate groupings which may be used effectively, but which are not ideal.

"Minimum supervision" applies to arrangements in which the trainer starts the student on a task and then merely needs to be present to answer questions, guide the student back to the task occasionally, provide encouraging comments, etc. The defining characteristic is that the teacher can be doing something else away from the student while the method is being used, but can respond to the student within five seconds of any signal that help is needed.

"No supervision" applies to those rare methods that involve basically automatic, or self-teaching. Here the teacher/trainer might arrange the materials for the student(s) and then not have to interact with them at all. The defining characteristic of this arrangement is that the teacher can leave the room for at least five minutes and the method will still be used effectively.

(8) materials and equipment. Common objects needed to teach the objective in the prescribed way are listed here for easy reference. If they are uncommon, they are described and/or drawn in diagram form.

(9) the source. If the method was adapted or taken directly from a commercial source, all the biographical data needed to refer to that source is included here (e.g., name of series or program, author, publisher, date, etc.). If the method was designed by one of The West Virginia System staff and is not available commercially, the member's name and the date the card was written appear in this section.

General Considerations in Training

1. ORGANIZING THE TRAINING SITE. A good training site is one which is well organized and allows for few distractions. Make sure the site you choose is private. If you do not have separate rooms for training, moveable

partitions may be used to enclose a space for training. The site should include enough chairs for the student(s) and trainer, as well as a small table. Always sit between the student and the door. This arrangement will help in controlling attempts by the student to leave the site. Also close the door and post a "PLEASE DO NOT DISTURB" sign on the outside of the door, or hang a similar sign on the corner of the partition.

Keep all data sheets, pencils, reinforcers, and other materials, not immediately in use, out of the student's reach and sight (e.g., behind you). Do not spread these items on the table in front of the student(s) as this could distract and/or encourage him/her to scatter these materials everywhere. Bring only essential items to the site with you. Excess baggage will only weigh you down and provide more distractors for the student. Make sure you have all materials gathered prior to the training session so that it need not be interrupted by your leaving to look for something. Finally, do not leave your materials lying around the training site when not in use, or you may find that they have somehow mysteriously disappeared or been damaged.

2. TRAINING SCHEDULE. It is best to have at least one training session per day on each task. If too much time elapses between sessions, you may find that the student has forgotten much of the task. Holding frequent sessions means more opportunities for the student to practice the new skill. It is also recommended that the teacher set up activities outside of the training situation which will integrate new skills, give the student more opportunities for practice, and generalize the skills to new situations.

Fifteen-minute training sessions are recommended as this time span generally will not exceed the attention span of the student. Longer sessions may make training annoying to the student who quickly looses interest in an activity. It is also wise to incorporate several trials on behaviors already acquired into a session. This assures maintenance of previously learned skills. Also, the successes the student has on these trials will help sustain the student's interest in training. Remember, however, that the nature, number, and length of sessions should ultimately depend on the individual responding of the student. Try to time your session to end when the student is responding well and is enjoying the training. S/he will be more enthusiastic the next time.

3. TEACH THE OBJECTIVE, NOT SOMETHING ELSE. Keep the method card from which you are training handy, and refer to it often to refresh your memory of precisely what it is you want to train. For example, if the objective states the student should reach (with extended fingers) toward an object placed in front of him/her and touch the object, you might easily misinterpret the objective and require the student to grasp the object if you were not referring to the method card while training. Even if you are familiar with the training method, you may find it helpful to glance at the card quickly before each training session. You may want to carry the card with you to the session and keep it in front of you as you train.

Unless otherwise specified on the method card, only reinforce completely correct demonstrations of the task. For example, if the objective calls for

a response to be made within five seconds of the prompt, make sure you reinforce only responses made within that time limit. Similarly, if the objective calls for a shirt to be taken completely off, reinforce the student only when the garment is completely off his/her body and not when it is still hanging on a wrist. If you do not require complete accuracy, when you begin training in a new task which requires an accurate performance of previously trained tasks, you may find training difficult or impossible because the requisite skill has never really been acquired.

Also, remember to avoid reinforcing interfering behaviors. Do not teach the student that the way to terminate training is through engaging in interfering activities. Suggestions on coping with interfering behaviors are included in the next section.

Meeting Certain Inevitable "Challenges"

In nearly every training situation, there will be certain problems which will need to be worked out if training is to occur efficiently and effectively. Below are provided some common problems which the trainer may face and some suggestions which may assist in meeting these "challenges."

1. MARY DOES NOT ATTEND AT ALL TO WHAT I AM TRYING TO GET HER TO DO. It may be that Mary simply does not have the skill of attending in her repertoire. You can teach this skill as a part of the particular objective on which you are currently working. You do not need to divert your teaching to a separate program for developing attention. Favorite, bite-sized, solid foods are excellent for catching the eye of the student. Before each training trial, simply hold the edible close to your face and say, "Mary, look at me." When Mary looks at you, give the appropriate prompt as specified on the method card. Reinforce correct responses with the edible. If Mary does not look at you upon command, manually guide her head to the desired position and continue as specified above.

2. MARY ATTENDS, BUT NOT CONSISTENTLY, TO WHAT I AM TRYING TO GET HER TO DO. If this is the case, there are several steps you can take. First, check your training situation. What is the student attending to when not attending to you? Is the training site such that the student can see and hear others doing things that seem to be more fun than what s/he is doing? If it is, find a quiet, private area where these distractions are minimized. Are there other things in the training site itself that might be more interesting than training for the student to attend to (e.g., brightly colored pictures, toys, or a window with a nice view)? If there are, you might want to try getting rid of some of these distractors.

Second, check the reinforcers you are using. Are they really appealing? If the student has eaten two bowls of Fruit Loops for breakfast, more Fruit Loops might not be very reinforcing. Similarly, if you have been using the same foods over and over again in training, perhaps you should try a little more variety. You should also check the freshness of the edibles you are using. Eat one. Old, stale foods do not have much appeal for anyone,

including your student. If you are using social reinforcers, remember that not everyone likes to be patted and cuddled all of the time. Again, you may provide variety by alternating social reinforcers with edibles and brief, enjoyable activities such as looking at a pretty picture for a few seconds.

Third, if you are quite certain that the training site is distraction-free and that your reinforcers are suitable, you may try immediately stopping training and turning your head away from the student when s/he stops attending to what you are doing. When the student looks at you again, turn to him/her immediately, reinforce looking at you, and then resume training. Use this strategy only when the other two have failed.

3. MARY ENGAGES IN FREQUENT SELF-STIMULATORY, EVEN SELF-INJURIOUS BEHAVIOR. There are basically three strategies you can try if this is the problem. First, try ignoring the student when s/he engages in the undesired behaviors. Second, if this first strategy does not seem to be working, try stopping training and turning you head away from the student until the behavior stops. When it does stop, immediately turn to the student, reinforce him/her, and then continue with training.

There are some disadvantages to using either of these two strategies, however. Ignoring the student or "timing him/her out" (strategy number two) are obviously inappropriate in cases where the behavior may be potentially harmful. A common result of these two strategies is for the behavior immediately to increase in frequency and/or intensity. Thus, it must be stressed that for many self-stimulatory or self-injurious behaviors immediate action should be taken. In these cases, try the following strategy: When the behavior begins, immediately tell the student what s/he is doing wrong (e.g., "Mary, you're stomping your feet.") and stop the behavior by grasping the body part involved. Then, manually guide the body part through a series of four to five movements (e.g., feet out in front, on the floor, to the side, etc.). Repeat this practice for about five minutes and then resume training.

This description is an abbreviated form of a strategy generally known as "overcorrection." The interested reader is referred to Azrin, Kaplan, and Foxx (1973) and Foxx and Azrin (1973) for more complete descriptions of the overcorrection procedure.

Remember, the key in eliminating these behaviors is to not let the student profit from engaging in them. This means being firm but not nasty. Do not plead, cajole, or let the student get out of training by engaging in these behaviors. Carry out your strategy and resume training matter-of-factly when the behavior is under control.

4. MARY WORKS HARD BUT DOES NOT SEEM TO BE LEARNING. If this is the problem, first check your teaching. Are you sure that the student is really attending to you? Are you speaking clearly, slowly, and loudly enough so that s/he can understand what you are saying? Are you pacing your trials adequately (i.e., evenly and without too much time elapsing between them)? Do the gestures you use really reflect what it is you want the student to do? If you are using modelling, are you going through the movements slowly enough so that the student can catch what you are doing? Do you stand directly

in front of him/her so that a good view is provided? Is there enough time given for the student to respond? Are you sure you are using the reinforcers best suited to the individual student rather than reinforcers which are convenient? Has the student tired of the same old reward?

If you decide that the training methods are not at fault, then it may be that the response is just too difficult for the student at this point. Try dropping back one objective at a time in the sub-area until you find one that the student does perform. Then start training on the next objective. If the student is still having difficulty, try making up an objective which is somewhat more difficult than the objective the student can do, but less difficult than the objective you are trying to teach. Train this new objective and then go on to the next objective in the sub-area.

A third strategy for coping with this problem is to refer to the Scope, Sequence, and Correspondence chart provided in this binder (p. 39). This will tell you where to find other methods for training the behavior of interest. And do not forget that your colleagues and special education coordinator are also valuable sources of information.

5. THE METHOD CARD CALLS FOR 1:1 TRAINING AND I HAVE NINE OTHER KIDS IN THIS ROOM. Although the method card may call for 1:1 training as the best grouping, alternative, effective groupings will usually be suggested on the card. Use these alternatives, incorporating as many students as you can manage (effectively and efficiently) at one time. You may also use students who are proficient at the particular training task as assistant trainers.

While you are in training, have the other students engage in a fun, quiet activity which will hopefully keep their attention (e.g., coloring, finger painting). If you have an assistant, have him/her supervise the students whom you are not training at the moment. If your school board will not provide you with an assistant, look for volunteer help among the ranks of parents, high school students, and other potentially interested persons. Your local chapter of the Association for Retarded Citizens (A.R.C.) may be of help here. If you do not have an assistant at the moment, you may want to shorten your training periods so that you can rotate training among students more quickly.

As many students do not remain quietly engaged in activities when left on their own, you should consistently reinforce self-directed, appropriate behavior. That is, make sure that rewards are consistently given to students who behave well while you are in training session with other students. A chart on the wall displaying who has behaved correctly and how many times each has received rewards is a good way of reminding higher-level students of the goodies to be obtained for good behavior. It is also a good way of reminding you to reinforce that behavior. For severely and profoundly retarded students, you might try mounting individual token-banks on a convenient wall. These are cylinders of clear plastic (1 per student) through the top of which students drop plastic tokens (e.g., poker chips) earned for good behavior. As more tokens are placed into the student's bank, the level, of course, rises, giving a nice visual representation of the

student's behavior. Allowing your students to purchase reinforcers with their tokens earned for good behaviors should further serve to increase and maintain that behavior.

6. I DON'T HAVE TIME TO DO ALL THIS PAPERWORK. While the West Virginia System does little to decrease paperwork involved in developing the newly mandated individualized educational plans (IEP's) and consent forms, the Universal Data Sheet (UDS) included in this binder (see pp. 260-276) has been designed to eliminate some of the paperwork ordinarily involved in running an effective, objectively based classroom. By incorporating a recording technique and graphic representation into one device, you can record your students' data and keep a graphic record of performance simultaneously. It will also provide a simple means of communicating progress to parents, administrators, and other interested persons.

Data collection is normally the most difficult and time consuming aspect of paperwork, and even it becomes easier with practice. The importance of keeping records of your students' progress cannot be over-emphasized. Without these records you will have little concrete idea of the skill level at which your students are performing and therefore little basis upon which to make future programming decisions.

7. THE METHOD CARD CALLS FOR SPECIAL EQUIPMENT THAT I DON'T HAVE. Usually, the method cards will call for equipment which is readily obtainable. In the rare case that special equipment is required, there are several strategies you may use. First, check with colleagues, friends, or your supervisor. They may know where such equipment can be obtained. Second, see if you can make the required item. Third, check the catalogues.[1] Although this strategy may be more expensive and take more time (e.g., in delivery), it may be the best choice. Be sure to place your order enough in advance so that the equipment will be available when it is time to begin training. These materials have been specified because they are most effective in teaching the behavior; so try, if at all possible, not to settle for second best. However, if you cannot acquire the exact materials, do not give up on training the skill. Be creative, and improvise. If you cannot improvise a satisfactory substitute, refer to the Scope, Sequence, and Correspondence Chart for alternative methods for teaching the same objective.

A Checklist for Spotting Certain Problems with Training

Below is a checklist provided for easy reference. The trainer who refers to the checklist frequently will avoid developing "bad habits" which interfere with effective training. If sessions are not going smoothly, the checklist will help the trainer pinpoint the problem areas.

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1. The authors suggest the following catalogues: Developmental Learning Materials, 77-78 (available through Developmental Learning Materials, 7440 Natchez Ave., Niles, IL 60648); SRA '77 Catalog (available through Science Research Associates, Inc., 259 East Erie Street, Chicago, IL 60611); and for West Virginia educators only, Annotated Bibliography of Special Education Instructional Materials (available through West Virginia College of Graduate Studies, SEIMC, Institute, WV 25112).

THE WEST VIRGINIA SYSTEM

TRAINER'S CHECKLIST

	YES	NO
1. Was your training site private, quiet, and distraction-free?	____	____
2. Did you post a "do not disturb" sign on the door or paritition before beginning training?	____	____
3. Did you seat yourself between the student and the entrance to the training site?	____	____
4. Did you collect all essential materials before going to the training site?	____	____
5. Did you avoid bringing any non-essential materials to the training site?	____	____
6. Did you keep the method card close at hand and refer to the objective when necessary?	____	____
7. Did you speak and gesture clearly, slowly, and loudly enough during training so that the student understood what you were saying?	____	____
8. Did you get the attention of the student each time before you began a new trial?	____	____
9. Did you get the student's attention before beginning to model?	____	____
10. Did you pace your trials effectively?	____	____
11. Did you slowly go through the movement of the training task and stand directly in front of the student when modelling?	____	____
12. Did you reinforce only correct demonstrations of the training task (unless otherwise specified on the method card)?	____	____
13. Did you avoid reinforcing interfering behaviors?	____	____
14. Did you give the student enough time to respond?	____	____
15. Are you certain that the reinforcers you used were most suitable to the individual student?	____	____
16. Did you deliver reinforcers <u>immediately</u> after a correct response?	____	____
17. Are you sure the objective you trained was not too difficult for the student at the moment?	____	____
18. Did each student have at least one training session per day for each objective presentaly being trained?	____	____
19. Did you observe the students engaging in activities outside of training which incorporated newly learned skills?	____	____
20. Were your training sessions 15 minutes long or fewer?	____	____

Some Technical Considerations

The functional and informative aspects of the method cards have already been described. However, the interested reader may want further detail regarding technical aspects of the objective sequence and method card development. The following information is provided for such a reader and is an adjunct to the other sections of this introduction. It is primarily supplementary, and a trainer can certainly use this program effectively without the benefit of the following information.

Flow Concept and Flow Charts

The training of even a "simple" task such as buttoning one's shirt involves a number of discrete steps which can easily become disjointed or rearranged unless a system is provided to insure their proper integration. The use of flow charts provides such a system. As previously mentioned (p. the method cards have been written so that not only is the trainer provided with a step-by-step procedure of how to teach the objective, but s/he is also provided with alternative strategies to be used if the student does not respond or responds incorrectly. This concept is graphically illustrated by means of a flow chart.

A flow chart is provided with each sub-area. It is usually based on the procedure used on the first method card of the sub-area and represents the basic strategy used in teaching objectives within that sub-area. When reading the chart, begin at the top with the first rectangle. This indicates the first step which the trainer performs or has the student perform. Arrows from this step indicate where the reader goes next. If the first step involved "a choice point", i.e., the student had a chance to respond correctly, incorrectly, or not at all, the arrow will direct the reader to a diamond rather than to another rectangle (or step). From each choice point (or diamond) are arrows marked "Yes" or "No". These also guide the reader to the next step depending upon what "choice" was made.

Inspection of one of the flow charts reveals that the reader is often sent back to a previous step if the answer at a particular choice is "No." In other words, the student must successfully complete a step before the next step is begun. It should be noted, however, that on many occasions a limit is placed on the number of times a particular step is repeated. For example, if the answer to the question "First Time?" is "No" (indicating that the trainer has already repeated the step once), the reader is directed to a different step. This different step is not the same as going ahead with the next task that occurs in the sequence of tasks necessary to perform the objective. Rather, it is more accurately conceived as as an alternative strategy provided for teaching the as yet unsuccessfully performed step the trainer is attempting to teach.

Two symbols or words which often appear on the flow charts and may require explanation are "SR+" and "fade." "SR+" is merely a shorthand form of writing "reinforce." It appears after every correct response and after or as part of steps involving physical prompting. It should be remembered that although shown on the flow charts after every correct response, the trainer probably will want to alter the reinforcement schedule once training has shifted to maintenance for a particular objective. "Fade" is the technical term used to describe the process of gradually reducing the amount of assistance given to the student. Although the term "fade" does not appear on the method cards themselves, a comparison of the flow chart steps with those on the method cards reveals that the flow chart "fade" steps correspond to the method card steps which say something like, "Continue step 3(a), each time giving less and less assistance."

Again, it should be emphasized that an understanding of "flow" and flow charts is not a requisite for the effective use of method cards in this binder. The charts merely provide a quick, graphic illustration of the procedure generally applied in each sub-area. However, effective teaching can be enhanced by a thorough understanding of flowcharting and the use of these charts to evaluate the completeness of teaching routines. If the routine flows smoothly and leads to no dead ends when charted in this manner, it will be an indication that a thorough analysis of the steps to be followed in teaching a particular objective has been accomplished.

Implications of Uniform, Specific Training Routines

As explained on Page 3 , a particular sequence of prompts was adopted for use with most of the training. This sequence generally begins with a prestep (designed for assessment rather than actual training) and then progresses through a sequence of prompts, beginning with a minimal level (e.g., a vocal or gestural command) and continuing through a maximal level (e.g., actually taking hold of the student and physically guiding him/her through the task). In cases where physical assistance is given, it is then "faded." That is, the trainer is instructed to reduce tha amount of physical assistance gradually until the student performs the objective with only a slight touch. (Exceptions are in cases where the objective specifically states that the behavior is to be performed with assistance).

The rationale for the approach described above is based on the fact that people, whether adults or children, handicapped or "normal", learn at different rates and through different modes. To provide physical assistance to a student who might be able to perform the task after having it demonstrated once by the trainer or another student would be a waste of time and effort. Providing only as much assistance as is absolutely necessary allows a more accurate assessment of the student's rate and "style" of learning and also produces more efficient teaching. At the same time, strictly adhering to the program in cases where the suggested sequence of prompts does not fit a particular student's learning style would also be a waste of time and effort.

For example, a trainer may discover after several trials that a student does not respond to modeling. Why continue to adhere strictly to the suggested procedure if it contains modeling? The trainer in such a case would be wise to alter the sequence of prompts so that it more adequately reflects the performance of the particular student.

The use of presteps (for assessment) and the provision of a slight delay between signals and subsequent prompts likewise enhance the efficiency of training by allowing the student an opportunity to demonstrate that the response has already been learned. For example, with an objective involving partial physical prompting, the teacher might signal the student to "pull on your sock" and wait a few seconds to see whether the student does it. Or the teacher might give the signal and proceed immediately to help the student without waiting to see whether s/he responds to the signal alone. The first procedure seems preferable from the standpoint of efficiency.

The question of "How much should the method be altered?" is difficult to answer. The developers of this program would like to encourage creativity on the part of trainers. Of course, it is possible that creativity might be employed at the cost of effectiveness. Generally, however, the danger with a programmed learning package such as this lies more with its being used too strictly than with its being used too flexibly. As long as the trainer is keeping accurate daily records and realizes that some of his/her creative efforts may prove ineffective, there is more to be gained by flexible use of the program than by rigid adherence to it.

An Open-Ended System

Related to the flexibility suggested above is the concept of this curriculum being "open-ended" rather than fixed and complete. The user of the program will notice that many method cards suggest writing another objective if the student responds incorrectly on several successive trials after all the suggested prompts have been employed. Given the previously discussed differences in learning rates and styles, the need for this type of flexibility is readily apparent. Guidelines which were used for generating the method cards in this binder have been included along with a blank method card. By referring to these guidelines and the already devised method cards, a trainer should be able to generate new method cards and "sub-objectives" when s/he finds those provided are inadequate. For purposes of organization, we suggest these new sub-objectives (along with their corresponding method cards) be numbered with the previous card's number plus an "a" (if it is the first sub-objective written) or a "b" (if it is the second), etc. For example, if a trainer wrote two sub-objectives to Walk - 1 (i.e., s/he found it necessary to add more steps to the skill taught with Walk - 1 before teaching Walk - 2), s/he would number them Walk - 1a and Walk - 1b, respectively. Similarly, if a trainer discovers another source which has objectives that s/he finds helpful in addition to those already included in the binder, they can be transferred onto cards (as described above), numbered

in this fashion, and inserted at the appropriate place(s) in the binder. The new source(s) can then be added to the Scope, Sequence, and Correspondence Chart so that it remains current and maximally effective.

Sub-Areas Found in More than One Skill Area

There is some overlap in terms of skills to be taught in the various areas. For instance, teaching a student to wash his/her hands is an integral part of both Uses Toilet and Washing and Grooming. In order to make each skill area a self-contained unit, sub-areas have not been cross-referenced. Thus, a trainer who is teaching in more than one skill area likely will find identical or highly similar sub-areas in more than one skill area. Although this may appear redundant to the educator who is using the entire program, it is necessary in order to provide a complete sequence of objectives for those trainers who may be using materials in only one or two skill areas. Such a system also allows a teacher to have an aide or volunteer train on one area while s/he trains in another without having to shuffle materials back and forth between them.

In The Future

Your Help is Needed

As previously mentioned, the entire West Virginia System curriculum consists of 20 binders (such as this one) corresponding to the 20 WVAATS skill areas. The curriculum presented in this binder and others like it have been developed by teachers and other professionals experienced in working with developmentally handicapped children. In spite of the fact that an attempt has been made to field test the materials as they have been developed, the curriculum will continue to be revised and expanded as data are gathered from educators indicating the need for such changes. We strongly encourage the users of these materials to provide us with information regarding the strengths and weaknesses of the program so that we might continue to improve upon it.

Home Enrichment Program

In addition to the 20 binders containing curricula suited to a classroom situation, the West Virginia System includes "Home Enrichment Cards." These cards contain descriptions of games or game-like activities to be used either by the parents or the teacher to expand or maintain skills being taught in the classromm. Except for a few areas such as toileting which do not lend themselves to game-like activities, a minimum of two activities will be provided per sub-area. Examples of Home Enrichment Cards are included in Appendix E.

Sensory Zone

Introduction

Three areas comprise the Sensory Zone of the West Virginia System curriculum binders - Auditory, Tactile and Visual Responsiveness. They are very similar to the other 17 binders of the system, yet these three are unique. They are similar in overall organization and construction. The same procedures were followed in writing these three areas, also.

The Sensory Zone areas are unique in that they address/teach some very basic responses to auditory, tactile or visual stimuli. In writing these three curriculum binders the authors attempted to keep each method card simple and specific to the area it addressed. They also endeavered to cover as many different response modes as feasible in order to keep prerequisite skills to a minimum. The West Virginia System staff strove to write method cards in a manner that even the most severely physically, visually or hearing impaired student would have a means of receiving the appropriate stimuli and a means of responding to them. In Auditory Responsiveness, for example, the only Prerequisite Skill on all method cards is that the student have at least partial hearing. Response mode prerequisites vary, but often may include speech, and sign language. Other modes include gesturing, using a head or mouth pointer to select from a group of pictures, using a communication board with an electric switch to select pictures, symbols, words, and so on.

By keeping prerequisite skills to a minimum and permitting many response mode alternatives, each of the Sensory Zone areas has been kept relatively specific to the sensory mode being assessed and trained. By doing so, visually and physically impaired and some hard of hearing students may perform most Auditory Responsiveness objectives; deaf, physically impaired and some visually impaired students may perform most Visual Responsiveness objectives; and deaf, blind, multiply handicapped and all but the most severely physically involved students may perform many of Tactile Responsiveness objectives.

The Sensory Zone areas may be selected for instruction for those students whose WVAATS (Cone, 81) profile is generally low. These students have low scores in most Primary Zone areas. Students who fall into this category are either young, severely- or multiply-handicapped or both. Their multiple handicaps include combinations of mental retardation, physical handicaps, vision or hearing losses. The students have educational goals in both Sensory and Primary Zone areas. Their Primary Zone goals consist of the simpler skills in those areas. Sensory Zone goals are selected to develop prerequisite skills needed for training in more complex Primary Zone area skills.

The Senses are used to receive the stimuli which serve as cues for the student to respond during training in all areas. If the student has sensory losses (e.g., visually or hearing impaired) two priorities emerge.

The student needs training to develop maximally those receptive skills in his/her remaining senses, and to use any residual sight or hearing s/he possesses. For example, a visually impaired student would receive auditory and tactile responsiveness training to develop these areas as strengths and would also receive visual responsiveness training to minimize the deficit. The deaf student would receive visual skill training as prerequisites for learning sign language, cued speech, lip reading, and so on. S/he would receive tactile responsiveness training to feel auditory vibrations. Auditory training may then be adapted using the student's tactile responsiveness to auditory stimuli. For the blind student, tactile responsiveness training would provide prerequisite skills for learning to read braille. All of the Sensory Zone areas provide response alternatives so that severely physically handicapped students may receive skill training in them. The introduction to each Sensory Zone area includes additional suggestions for selecting it as a priority training area.

Visual Responsiveness

Introduction

Visual Responsiveness, for the purposes of this binder, is defined as a specific, measurable behavior exhibited by a student within a specified amount of time following the presentation of a specific visual stimulus. The continuum of visual stimuli in this binder ranges from bright objects which are 12 inches from the student's face, through changes in lighting, to smiles from 10 feet away and small differences in similar figures. Possible correct responses to the stimuli range from simple changes in pupil diameter through stringing beads and kicking rolling balls to drawing missing parts in pictures.

The visual responsiveness curriculum progresses from simple responses to general visual stimuli through recognition of specific visual stimuli to preacademic visual skills, such as would be addressed in early childhood education and the primary grades. The last step of many method cards in this binder refers the trainer to other appropriate sources (areas and sub-areas) in The West Virginia System curriculum binders. These suggestions provide alternative teaching strategies. However, they may be written in a manner which requires the student to have more prerequisite skills (such as hearing, use of hands, ambulation, etc.). The trainer is advised to use careful judgment before deciding to use these alternate teaching suggestions.

Contents of the Visual Responsiveness Curriculum

There are 11 sub-areas in the visual responsiveness curriculum area. These are presented in Table 1 along with abbreviated sub-area names, and the number of objectives and method cards in each. A perusal of the sub-area names in Table 1 will provide some information on the content covered in this curriculum. More specific information about each of the sub-area contents can be found in the brief introductory comments preceding the method cards in that sub-area.

The 11 sub-areas of visual responsiveness follow a general progression from simple to complex. The first five sub-areas, Shows Normal Reflexes (1) through Establishes Eye Contact (5), require the student only to respond to the presentation of an object or person. Scans Environment (6) and Visually Searches for Removed Objects (7) require more active involvement by the student as s/he looks for nearby objects. The Visual-Motor Coordination (8) sub-area includes a mixture of objectives which have in common the requirement of a motor response guided by vision. The objectives are similar to the initial objectives in a number of sub-areas in the Gross Motor and Fine Motor binders, and serve as introductions to these sub-areas for students who need to learn skills which are pre-requisites for these sub-areas. Finally, the Discriminates Visual Stimuli (9), Matches by Visual Cues (10), and Visual Closure (11) sub-areas require the student to respond to similarities and/or differences between visual stimuli (in the last method cards in Visual Closure, the student must respond to similarities between a partially-concealed object and an object which is not present).

Table 1

Contents and Organization of the Visual Responsiveness Curriculum Area: Sub-area Names, Abbreviations, Number of Objectives and Method Cards per Sub-area, and Corresponding WVAATS* Item Number

WVAATS* Item Number		Sub-area Name	Abbreviated Sub-area Name	No. of Objectives & Method Cards
17, 19	1.	Shows Normal Reflexes	Reflex	3
18	2.	Fixates on Objects	Fixates	6
20, 21	3.	Tracks Objects Visually	Tracks	14
	4.	Responds to Sight of Person	Sight of Person	5
	5.	Establishes Eye Contact	Eye Contact	4
	6.	Scans Environment	Scans	11
	7.	Visually Searches for Removed Objects	Searches	10
	8.	Visual-Motor Coordination	Visual-Motor	20
22, 23, 24	9.	Discriminates Visual Stimuli	Discriminates	22
	10.	Matches by Visual Cues	Matches	34
	11.	Visual Closure	Closure	18
		TOTALS	11	147

* 3rd Ed., 1981.

Although there is a general progression of complexity among and within the sub-areas, there is not necessarily a prerequisite relationship between any two adjacent sub-areas. Thus, while it is generally the case that earlier-appearing sub-areas should be taught before later-appearing ones, it will sometimes be desirable to teach several non-adjacent sub-areas concurrently (e.g., Fixates on Objects, 2, and Responds to Sight of Person, 4). And, it may even be reasonable in some instances to teach later-appearing sub-areas before earlier ones.

Objectives and Sources

As can be seen in Table 1, a total of 147 objectives has been included in the visual responsiveness curriculum. These have been obtained from a variety of assessment and curricular sources, all of which are listed in the references section of this binder (see Appendix B). Sources which we found to be especially helpful were the Behavioral Characteristics Progression (Santa Cruz Special Education Management System, 1973), the Comp Curriculum (Forsberg, Neisworth, & Laub, 1977), Developmental Guidelines (Karnes, Sprugel, & Goldberg, unpublished), and Assessment of Deaf-Blind Children: The Callier-Azusa Scale (Stillman, 1976).

After identifying the objectives to be included in the curriculum we grouped them into sub-areas, regrouped them, added, deleted, and finally settled on the 11 sub-areas listed in Table 1. Next it was necessary to rewrite the objectives to get them to be consistent with the 3-part Mager (1962) form. Objectives were then arranged to approximate what appeared to be the most logical order for teaching them. Additional objectives were then written to fill obvious large gaps.

Throughout the process of obtaining objectives from different assessment and curricular sources care was taken to keep track of the origins of each. This enabled the production of a cross-referencing system which shows whether and where the objective is located in each of the more than 20 sources used. The cross-referencing system appears in the Scope, Sequence and Correspondence section of this binder.

Method Cards

As in all curricula of The West Virginia System each of the 147 objectives in the visual responsiveness area is printed on a method card which also provides a detailed, step-by-step lesson plan for teaching the objective. The lesson plan is written in a direct-instructional format with reinforcement and correction strategies specifically stated, and a sequence of progressively more compelling prompts included as steps in the method. Portions of a typical visual responsiveness method card are illustrated on the following page.

The task analyses for each of the 11 sub-areas of the visual responsiveness area are a combination of rationally and empirically derived teaching strategies. Many have been tried out and refined at least in part as a result of actual experiences with them. Additionally, numerous speech/language clinicians, audiologists, teachers, psychologists, aides, secretaries, mothers, and graduate students have provided initial input and offered reference suggestions, examined the method cards and offered suggestions for their

Method Card

AREA: Visual Responsiveness	SUB-AREA: Fixates on Objects	OBJECT NO.

OBJECTIVE Given a red ball or other brightly-colored object presented 12 inches in front of the student's face, the student looks at the object within 2 seconds.

MASTERY CRITERION:

3 out of 4 responses correct for 2 consecutive sessions.

METHOD

1. Hold a red ball or other brightly-colored object 12 inches in front of the student's face. If CORRECT (i.e., student turns eyes toward object within 2 seconds), reinforce and repeat Step 1 until mastery criterion is met. If NO RESPONSE, repeat Step 1. If STILL NO RESPONSE or if INCORRECT, go to Step 2.

2. Repeat Step 1, dangling or shaking the ball rather than holding it still. Say, "___, look at the (ball)," as you do this. If CORRECT, reinforce and return to Step 1. If NO RESPONSE, repeat Step 2. If STILL NO RESPONSE or if INCORRECT, go to Step 3.

Touch the ball to the student's nose; then slowly move it to a point 12 inches in front of student's face while dangling or shaking the ball. Say, "___, look at the (ball)," as you do this. If CORRECT, reinforce and repeat Step 3, gradually increasing the distance at which you present the ball until the student responds.

improvement. It is important to note, however, that none of the task analyses represented in the sub-areas of this binder has been exhaustively evaluated such that we can say with certainty that they are effective ways of teaching each of the skills. Until such evaluations have been completed it is probably best to regard the method cards as tentative suggestions of teaching strategies which have a good chance of being effective with a given student. The teacher/trainer should be alert to ways of improving each sub-area, and should especially watch for opportunities to make the task analyses more complete by adding intermediate objectives and step-by-step procedures for teaching them. Guidelines for writing method cards are presented in a later section of this binder for persons who want to improve various of the sub-areas in this way (See Appendix C).

Prerequisites

The only prerequisite specified on all the method cards in the visual responsiveness binder is vision. Other necessary prerequisities for specific method cards and/or sub-areas pertain to the student's response mode. As was mentioned in the Sensory Zone introduction and the first

paragraph of the introduction to this binder, efforts were made to keep the response mode as flexible as possible. The trainer will find many prerequisites connected by "or", and the objectives list examples of several different prerequisite response alternatives.

Student Grouping

The ideal student/teacher ratio for most visual responsiveness sub-areas is 1:1. Some sub-areas may also be taught in small groups. For example, a number of the method cards in the Visual-Motor Coordination sub-area lend themselves to small group instruction.

Materials & Equipment

A variety of materials and equipment is suggested on the method cards in visual responsiveness. In some cases, no materials are needed. Most method cards call for bright or otherwise visually stimulating objects, screens, figures and letters drawn on cards, assistants, etc. Efforts were made to suggest use of inexpensive, commonly available materials. These are materials that would typically be found in educational settings. The key here is to remember that most materials listed are suggestions. The trainer is encouraged to use available resources, make appropriate substitutions, and use his/her imagination to expand upon the provided lists.

Programming for Generalization

While the acquisition of visual responsiveness skills may be most efficiently brought about in intensive one-to-one training sessions, the generalization of these skills over time and setting requires supplementary procedures. There are myriad opportunities for incidental visual training throughout the typical program day (e.g., snack time, art, lunch, as part of other instruction, etc.). These should be capitalized on at every opportunity. At the very least, generalization should be facilitated by having visual training conducted by more than one person and in more than one setting (e.g., classroom, playground, dayroom; one-to-one and group; etc.). Parents, other family members, and volunteers can easily be recruited as visual trainers since the method card format of The West Virginia System curricula has been specifically designed to facilitate this kind of multiple trainer approach.

Where To Begin Training

Initial assessment in visual responsiveness, as in all curricular areas of The West Virginia System, is by means of the West Virginia Assessment and Tracking System (WVAATS, Cone, 1981). Other measures may be used in addition to, or instead of, the WVAATS, as will be described later.

In the preparation of Individualized Education Programs (IEPs) the WVAATS is used as the primary vehicle for determining priority training areas, present levels of educational performance, long-range goals, annual goals, monthly goals, and short-term instructional objectives. In the sections that follow you will be taken through the steps involved in

targeting visual responsiveness as one of the areas of instruction to be included in an IEP or any other habilitation or intervention plan which might be used to design the behavior change programs of clients in human service agencies. A blank WVAATS Answer Sheet and Profile Sheet may be found in Appendix D.

Selecting Visual Responsiveness as a Priority Training Area

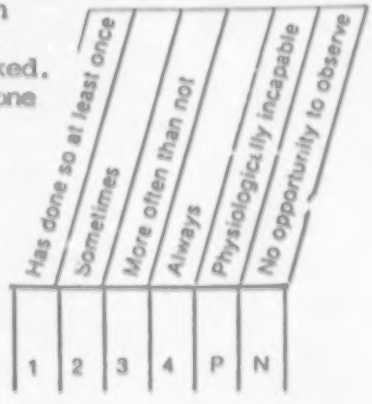
When the WVAATS has been administered and scored, the resulting profile is examined to determine the student's relative strengths and weaknesses across the WVAATS scales. From the profile examination it is possible to select priority areas for training. These would generally be those areas (scales) on which the student scored the lowest. Of course, other considerations play a part in deciding priority training areas. Chief among these are (1) the skills most necessary to function in a less restrictive environment, (2) the importance of some skills relative to others (e.g., responding to visual stimuli obviously facilitates development in other areas), and (3) the preferences of parents, teachers, and others working with the student on a frequent basis.

Visual responsiveness may be selected as a priority training area for several different reasons. As was explained in the introduction to the Sensory Zone, if the student's profile is generally low in the Primary Zone, some Sensory Zone responsiveness training is advised, together with skill training in Primary Zone areas. A student who has low auditory responsiveness (the deaf or hearing impaired) should receive visual responsiveness training to develop maximally skills using vision. The vision impaired child may benefit from visual responsiveness training to develop skills in using residual vision, to stay close to "normal" development in an area of sensory loss/deficit.

Determining Present Level of Performance

Once visual responsiveness has been selected as a priority training area it is then necessary to establish the student's present level of performance (functioning, skill, etc.) within the visual area. To establish the present level of performance in visual responsiveness and in the other two Sensory Zone areas of The West Virginia System, the following four steps are suggested:

Step 1. Consult the completed WVAATS answer sheet in the visual area and find the first item where "Has done so at least once" (1) or "Sometimes" (2) is marked. (The complete scoring alternatives for the Sensory Zone are noted in the example at the right).



Example of a completed WVAATS answer sheet in the visual responsiveness area.

Step 2. Consult the WVAATS manual for the corresponding item.

C. VISUAL RESPONSIVENESS

17. Changes pupil size in response to variations in the brightness of light.
18. Looks at or fixes eyes on an object *momentarily*.
19. Turns eyes and/or head toward source of light.
20. Follows an object moving from left to right or right to left within six inches of face.
21. In an uninterrupted movement of eyes only, follows object moving from left to right or right to left (shows no hesitation or jerkiness of eyes as object nears center of face).
22. Indicates an identified object (e.g., "red ball," "square," "cow," etc.) when that object is presented together with two other, dissimilar objects.
23. Responds consistently in different ways to a printed capital "W" and "M" when presented together. (*Note*: This item and the next are measuring visual discrimination and do not require these specific skills to have been taught as part of a reading program.)
24. Responds consistently in different ways to a printed small "p" and a "q" when presented together.

Step 3. Consult the Table of Contents of the visual responsiveness binder to find a sub-area named the same or approximately the same as the item name, i.e., "Fixates on Objects."

Shows Normal Reflexes . . . . . .
Fixates on Objects. . . . . .
Tracks Objects Visually . . . . . .
Responds to Sight of Person . . . . . .

-or-

Consult Table 1 for WVAATS item numbers which correspond with visual responsiveness sub-areas.

Step 4. Turn to the first method card in the corresponding sub-area and begin direct observational assessment of the student's skills in the sub-area by testing him/her on the first or "test" step of each method card in succession. Assessment should continue in this way until a method card is reached which contains an objective on which the student does not meet mastery. Since the objectives and method cards are generally sequenced in the order in which they should be taught, the last objective passed (mastered) during the assessment period represents the student's present level of performance.

Once it has been determined where the student is presently functioning it is possible to select the next higher skill in a task analysis as the objective to be mastered in the training program first. This objective is often regarded as the student's entry level performance and becomes the first short-term instructional objective. More will be said about determining short-term instructional objectives after long-range, annual, and monthly objectives have been established.

Determining Long-Range Goals

The philosophy underlying The West Virginia System's approach to the I.E.P. process is that all instruction should be controlled by an analysis of the minimal skill levels necessary to function effectively in a less restrictive environment than that in which the student is currently placed. These minimal skills represent the long-range goals of a particular educational or habilitative program. Space does not permit a complete description of the process to follow in establishing long-range goals. The technology for doing this has not been extensively developed at this time anyway. Several approaches can be suggested, however.

First, it is necessary to decide the next less restrictive placement options for the student. There may be one or several, but it (they) should be determined before placing the student as an outgrowth of the present I.E.P. process. That is, when a student has been identified, screened, evaluated, and is being considered for special placement, the next most reasonable placement after the immediate one should be identified. This is very important as it may have serious implications for the appropriateness of the placement immediately being considered. Since less restrictive future placement is our overriding concern, present placements must be considered in terms of just how well they will prepare the student/client for future placement options. The programming option selected for immediate placement should be that which has the highest probability of preparing the student or client for the next.

Once subsequent programming options have been determined it is then possible to establish the minimal skill levels necessary for adequate functioning in them. A relatively easy approach to doing this is to have persons responsible for programming in these placements fill out a WVAATS answer sheet on the basis of such skill levels. A profile of the results could be used for comparison with those of students being considered for placement, and priority training areas and long-range goals could be determined. If the student is radically different from the "entry level profile" of that particular class perhaps a different less restrictive placement should be considered.

An alternative and more difficult approach to establishing entry level profiles of various placement options would be to observe the behavior of certain students/clients in those placements directly. The students selected would be those identified by the staff of the placement as being the lowest functioning persons they would accept in the program. Direct observations would be recorded on the WVAATS answer sheet and an entry level profile generated just as before.

The long-range goal for a student in the visual responsiveness skill area then becomes the objective in The West Virginia System visual responsiveness curriculum which corresponds with the minimal level of performance judged necessary for adequate functioning in the next less restrictive placement.

Determining Annual Goals

Annual goals are established by dividing the number of objectives in the visual responsiveness binder between the student's present level of functioning and the long-range goal by the number of years it is likely the student will need to reach the long-range goal. Let's say there are 72 objectives between where the student is now and where s/he needs to be to enter the next less restrictive placement. Let's also say that based on previous experience with this student and/or with similar students at this level it is likely that s/he will master three objectives per month. Assuming 12-month programming this represents 36 objectives per year. Dividing 72 by 36 results in two years to reach the long-range goal. Thus, the 36th and 72d objectives can be viewed as annual goals. Since it is unusual to go beyond a single year on a given I.E.P., only the 36th objective would be listed as the student's annual goal in visual responsiveness.

Determining Monthly Goals

Once the long-range and annual goals have been established it is a simple matter to determine the monthly goals to include on the student's I.E.P. These are found by dividing the number of objectives between the present level of performance and the annual goal by the number of months in the program year. In the present example, every third objective would represent a monthly goal.

Determining Short-Term Instructional Objectives

If the last objective of a task analysis passed by the student represents present level of performance, it is logical that the next objective in the sequence would be the student's first short-term instructional objective. The objectives in the sequence between this point and the first monthly objective (see below) would constitute the 2d, 3d, etc., short-term instructional objectives for the student.

Instruction would begin on the first short-term objective and the associated method card for that objective could be used as a daily lesson plan. It should be noted, however, that instruction in visual responsiveness need not be limited to a single objective in a single sub-area of its curriculum. While the 11 sub-areas are roughly sequenced from simple to

complex there is not always a prerequisite relationship between earlier and later-appearing sub-areas, as was noted earlier. That is, it is sometimes the case that sub-areas are of approximately equal difficulty and can profitably be taught at the same time. The teacher/trainer might want to repeat the direct observational assessment procedure in several of the sub-areas and select multiple short-term instructional objectives to be worked on concurrently in visual responsiveness training. This approach would be especially useful for "within-area thematic" or "cluster teaching" in which several different but related objectives are taught at the same time.

Summary

By following the procedures outlined above it is possible to produce the goals and objectives required for most I.E.P.s and other types of program plan. By establishing the student's present level of performance in the curriculum area as a reference point it is possible to determine short-term instructional objectives, long-range goals, annual goals and monthly goals in a relatively straightforward manner.

It should be noted that many programs do not specify all of the levels of goals described above. Indeed, P.L. 94-142 requires only the establishment of annual goals, short-term instructional objectives, and present levels of educational performance. We have found it extremely useful to differentiate goals more distant than immediate (short-term) instructional objectives and less distant than annual ones, and to tie these to calendar progress and update the plans at least on a monthly basis. Many people might find monthly goals and short-term objectives synonymous. In such cases some decision must be made as to which of the objectives between present level of performance and annual goal should be call "short-term". It has seemed easiest to us merely to regard anything between present level and first monthly goal as a short-term instructional objective.

Using Other Assessment Procedures

While the foregoing discussion has been restricted to assessment with the WVAATS, it is not necessary that the WVAATS be used in order to make use of the curriculum materials in the visual responsiveness area. Because several different assessment devices have been cross-referenced to the curriculum they can be used to determine where to begin training visual responsiveness skills. All that is necessary is for the assessor to examine the items missed by the student on the measure being used, turn to the Scope, Sequence, and Correspondence Chart in the binder, find the column corresponding to the particular measure, and read down the objectives in the column until ones missed by the student are located. By then reading the WVS objective to the left in the row(s) of the objectives thus identified, it is possible to find the sub-area and method card corresponding to the objectives. The assessor can then turn to the appropriate method cards, directly observe the student's performance as described on the test step and proceed with the procedures outlined above.

It should be noted that the use of other assessment devices in this manner can extend to measures used by speech/language clinicians, physical and occupational therapists and specialists in visual or hearing impairments as well. All that is required is that the items in the measure be cross-referenced to the objectives in the visual responsiveness binder. Because the objectives are specifically worded, grouped into sub-areas, and sequenced, this is a relatively easy task to accomplish. We recommend that teachers/trainers and the various specialists working with the student work closely to effect the cross-referencing of locally preferred measures so that the extensive curricular materials provided herein will be easily and logically accessed directly from whatever measure is used.

Keeping Track of Daily Progress

Daily recording of performance is vital to providing high quality, effective, and accountable programming. The ability to respond to the student's performance as reflected in the data and to alter programs accordingly is essential to maximally effective teaching.

Daily trial-by-trial progress in the visual responsiveness curriculum area, as in all West Virginia System curricula, can be monitored on the Universal Data Sheet (UDS). A sample UDS and guidelines for its use are included in this binder (see Monitoring Student Progress with the Self-Graphing Universal Data Sheet, Appendix A).

What To Do If Method Cards Do Not Teach

As mentioned earlier in this introduction, the method cards in this binder have not been thoroughly evaluated and shown to be effective for teaching each of the 147 objectives included in the visual responsiveness curriculum. Thus, it is likely that a user might find the strategies suggested on a method card not to be effective with a particular objective being taught a particular student. In such circumstances there are several alternatives open to the trainer/teacher which may succeed in getting progress going again.

1. Drop back to the previous objective and provide the student opportunities for overlearning it. Perhaps the mastery criterion for that objective was insufficient to assure the fluency necessary to facilitate ready acquisition of the next objective.

2. Write a new method for teaching the objective. Many teachers/trainers are creative enough to think of new teaching strategies which will be effective in the event the ones we have written are not. To facilitate the continued upgrading of the visual responsiveness curriculum new methods can easily be added to the system by using the blank method card and following the guidelines reproduced in the rear of this binder (Appendix C).

3. Write an intermediate objective and a method for teaching it. Suppose after dropping back and providing overlearning on the previous objective the student still does not make progress on the present one. Perhaps the step between objectives is too large. In such cases it might help to write one or more intermediate objectives and methods to teach these. Again the blank method card and gudielines at the back of the binder could be used.

4. Consult the Scope, Sequence, and Correspondence Chart (SSC) for additional strategies for teaching the objective. Since the objectives of numerous other curricula have been cross-referenced to those of The West Virginia System, it will often be the case that they will provide alternative teaching approaches which may work when a method card fails. As long as the teacher/trainer has access to some of these sources s/he will be able to use the SSC chart to go directly to the appropriate location in the referenced material and find the alternative strategy. Instructions for using the SSC charts are included in the SSC section of the binder.

5. Analyze the data to determine whether teacher antecedent or consequent behaviors should be altered. If the student has been "on" the objective for a number of days and has shown some correct trials, it is likely that the problem is more with performance than with acquisition. In such cases the power of the reinforcer(s) should be checked and, perhaps, new ones tried. If there are no trials correct after several days the problem is likely to be an acquisition one and the general suggestions offered above should be tried.

6. Call for help! Ask your supervisor, consultants, other teachers and other professionals for suggestions.

Appendices

Several appendices follow the method card sub-areas of the visual responsiveness binder. Some of these have already been mentioned. Their purpose, naturally, is to increase the usefulness of the curriculum to the largest number of teachers, trainers, parents, volunteers, etc. Included are: the use of the Universal Data Sheet, guidelines for writing method cards, sample WVAATS answer and profile sheets, The West Virginia System glossary of terms, references and Home Enrichment Program cards.

The Home Enrichment Program (H.E.P.) (Hawkins, et al., 1983) was developed in conjunction with The West Virginia System curriculum binders. An introduction to and brief explanation of the program are included in Appendix E. All H.E.P. cards relevant to visual responsiveness are also included.

Summary

Appropriate responding to specific visual stimuli is critically important to all learners with even a minimal amount of vision. In most educational settings, for both "normal" and "exceptional" students, much of the input (stimuli) from teachers and trainers is visual. In activities of daily living, visual stimuli provide warnings, guide persons as they move about, provide reinforcement, and so on. Maximizing a person's appropriate responses to visual stimuli is useful in all curriculum and instruction, and can help greatly in improving one's quality of life.

The visual responsiveness curriculum of The West Virginia System, drawn from a variety of assessment and curriculum sources, builds three types of skills: simple responding to visual stimuli, more active searching for objects, and responding to similarities and differences in visual stimuli. Additionally, one sub-area provides a foundation for learning more advanced gross and fine motor skills. It is distributed further across 147 objectives ordered sequentially into 11 sub-areas. The prerequisite skill in all sub-areas is some vision. Prerequisites for student response modes have been kept as flexible as possible. Each of the 147 objectives is accompanied by an explicit, step-by-step set of teaching procedures modeled after the direct instructional strategies described by Becker, Engelmann, and Thomas (1971). Visual responsiveness skills taught in this binder range from fixating on and tracking visual stimuli through discriminating and matching visual stimuli and responding to partially-hidden visual stimuli.

Objectives and instructional methods of the binder have been cross-referenced to many other assessment and training programs. Thus it is possible to enter the curriculum using assessment information derived from the West Virginia Assessment and Tracking System or from other measures included in the cross-referencing system of the binder. Additional curricula and assessment measures can be easily incorporated into the system to make them prescriptive as well as diagnostic. This cross-referencing capability extends to the procedures of speech/language clinicians, vision or hearing impaired specialists, educators and other human service professionals. Thus, the content of the visual responsiveness curriculum is not new. The novel contribution of the materials presented herein is their thorough integration into a comprehensive service delivery system designed to enhance the independent functioning of persons with a variety of handicapping conditions.

Appendix C

THE WEST VIRGINIA SYSTEM

AUDITORY RESPONSIVENESS CURRICULUM

for the

MODERATELY, SEVERELY, AND PROFOUNDLY HANDICAPPED

Produced by the staff of
The West Virginia System
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Table 1

Contents and Organization of the Auditory Responsiveness Curriculum Area: Sub-area Names, Abbreviations, Number of Objectives and Method Cards per Sub-area, and Corresponding WVAATS* Item Number

WVAATS* Item Number	Sub-area Name	Abbreviated Sub-area Name	No. of Objectives & Method Cards
9,10	1. Startles to Sudden Loud Noises	Startles	3
9,10	2. Responds to Sudden Loud Noises	Respond/Loud	4
10	3. Responds to/Tracks Sound-Making Objects	Responds/Tracks	9
	4. Manipulates Objects to Produce Sound	Manipulates	5
13	5. Responds/Attends to Voice	Voice	13
	6. Responds to Name	Name	7
12	7. Responds to Simple Commands	Commands	11
11	8. Responds to Praise	Praise	3
15	9. Responds to Music	Music	6
	10. Discriminates Volume	Volume	5
	11. Discriminates Pitch	Pitch	5
	12. Discriminates Tempo	Tempo	6
	13. Discriminates Duration	Duration	5

* 3rd Ed., 1981.

Table 1 (continue)

14.	Discriminates Relevant from Background Sounds	Relevant/Background	3
15.	Discriminates Rhythm	Rhythm	6
16.	Categorizes Sounds	Categorizes	7
17.	Identifies Object/Action Associated with Sound	Object/Action	5
18.	Matches Sounds	Matches	5
19.	Identifies Sound Producing Objects	Sound Producing	10
20.	Recall of Sound Sequences	Sound Sequences	10
21.	Recall of Sound Patterns	Sound Patterns	7
22.	Indicates Number of Presented Sounds	Number of Sounds	3
23.	Recall of Vocally Presented Numerals	Recall Numerals	34
24.	Recall of Forward Numerical Sequences	Forward Numerals	8
25.	Recall of Backward Numerical Sequences	Backward Numerals	8
26.	Recall of Vocally Presented Words	Recall Words	28
27.	Recall of Forward Word Sequences	Forward Words	6
28.	Recall of Backward Word Sequences	Backward Words	5
29.	Recalls Sentences	Sentences	9
30.	Recalls Simple Rhymes	Rhymes	6
31.	Recalls Simple Tunes	Tunes	5

16

32.	Recalls Simple Songs & Jingles	Songs	9 149
33.	Recalls Simple Stories	Story	11
	TOTALS	33	267

will sometimes be desirable to teach several non-adjacent sub-areas concurrently (e.g., Responds to Simple Commands, 12, Identifies Sound Producing Objects, 19). And, it may even be reasonable in some instances to teach later-appearing sub-areas before earlier ones.

Objectives and Sources

As can be seen in Table 1, a total of 267 objectives has been included in the auditory responsiveness curriculum. These have been obtained from a variety of assessment and curricular sources, all of which are listed in the references section of this binder (see Appendix B). Sources which we found to be especially helpful were the Behavioral Characteristics Progression (Santa Cruz Special Education Management System, 1973), the Comp Curriculum (Forsberg, Neisworth, & Laub, 1977), the Portage Guide to Early Education and Checklist (Bluma, Shearer, Frohman, & Hilliard, 1976), and the Oregon Project for Visually Impaired and Blind Preschool Children (Brown, Simmons, & Methvin, 19__). The last was the most generally useful source.

After identifying the objectives to be included in the curriculum we grouped them into sub-areas, regrouped them, added, deleted, and finally settled on the 33 sub-areas listed in Table 1. Next it was necessary to rewrite the objectives to get them to be consistent with the 3-part Mager (1962) form. Objectives were then arranged to approximate what appeared to be the most logical order for teaching them. Additional objectives were then written to fill obvious large gaps.

Throughout the process of obtaining objectives from different assessment and curricular sources care was taken to keep track of the origins of each. This enabled the production of a cross-referencing system which shows whether and where the objective is located in each of the more than 20 sources used. The cross-referencing system appears in the Scope, Sequence and Correspondence section of this binder.

Method cards

As in all curricula of The West Virginia System each of the 267 objectives in the auditory responsiveness area is printed on a method card which also provides a detailed, step-by-step lesson plan for teaching the objective. The lesson plan is written in a direct-instructional format with reinforcement and correction strategies specifically stated, and a sequence of progressively more compelling prompts included as steps in the method. Portions of a typical Auditory Responsiveness method card are illustrated on the following page:

Appendix D

THE WEST VIRGINIA SYSTEM

TACTILE RESPONSIVENESS CURRICULUM

for the

MODERATELY, SEVERELY, and PROFOUNDLY HANDICAPPED

Produced by the staff of

The West Virginia System

John D. Cone, Ph.D., Director

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Table 1

Contents and Organization of the Tactile Responsiveness Curriculum Area: Sub-area Names, Abbreviations, Number of Objectives and Method Cards per Sub-area, and Corresponding WVAATS* Item Number

WVAATS* Item Number	Sub-area Name	Abbreviated Sub-area Name	No. of Objectives & Method Cards
2,3,5	1. Responds to Human Touch	Human Touch	10
1,3,4,5	2. Responds to Touch by Objects	Object Touch	17
	3. Grasps and Holds	Grasps	16
	4. Examines Body Parts	Examines Body	10
	5. Examines Objects	Examines Objects	20
6, (8)	6. Matches by Size and Shape	Size/Shape	15
7	7. Matches Objects by Physical Properties	Matches Properties	16
	TOTALS	7	104

*3rd Ed., 1981.

Appendix E

THE WEST VIRGINIA SYSTEM

Project C. H. A. R. T.

FAMILY NEEDS ASSESSMENT *
(Revised 1/82)

NAME: _____ INTERVIEWER: _____

DATE: _____

The following interview - format survey items are designed to determine areas where you, the parent, have and need information. The information gathered will be used to plan group parent meetings where experts/professionals will speak on topics of interest to many parents. It will also be used to plan individual parent/family training sessions in your areas of interest need, specifically.

I am going to ask you if you are familiar with each topic and if you would like more information on that topic. I may ask additional questions to determine what kind of information you seek.

This is how I will code your answers:

YES/YES: YES, I know about the topic and YES, I am interested in more information.

YES/NO: YES, I know about the topic and NO, I am not interested in more information.

NO/YES: NO, I do not know about the topic and YES, I am interested in more information.

NO/NO: NO, I do not know about the topic and NO, I am not interested in more information.

* Information for basis of this form was taken from:

Individualizing Parent Involvement: 3. A series of papers on topics of interest to projects within the Handicapped Children's Early Education Program. Distributed by the WESTERN STATES TECHNICAL ASSISTANCE RESOURCE. Norris G. Haring, Principal Investigator, Seattle, Washington, November 1979.

THE WEST VIRGINIA SYSTEM
Project C. H. A. K. T.

FAMILY NEEDS ASSESSMENT *

NAME: _____ INTERVIEWER: _____

DATE: _____

Knows About/Wants Information

I. KNOWLEDGE	YES/YES	YES/NO	NO/YES	NO/NO	COMMENTS
A. General Information					
1. Normal child development					
2. Handicapping conditions/labels					
3. Tests and measurement					
a. Reasons for testing/ types of tests					
b. Results of tests					
c. How tests affect my child					
d. _____					
_____					
4. Health and nutrition					
B. Community Resources (Professional)					
1. Diagnostic, evaluation and treatment sources					
a. Physician					
b. Dental health					
c. Public health care					
d. Vision					
e. Hearing					
f. Orthopedics					
g. Physicial therapy					
h. Occupational therapy					
i. Speech/language therapy					

	YES	YES	NO	NO/YES	NO/NO	COMMENTS
j. Counseling						
k. Genetic counseling						
l. _____						
_____						
2. Support services (assistance)						
a. Supplemental Security Income						
b. Aid to Dependent Children						
c. Food stamps						
d. Legal aid						
e. Health insurance						
f. Housing						
g. Financial information						
h. Transportation						
i. Respite care						
j. Day care						
k. Babysitting						
l. Recreation						
m. Summer programs						
n. Schools (private, residential)						
o. Support groups (e.g., Association for Retarded Citizens, United Cerebral Palsy, etc.)						
p. _____						
_____						
II. EDUCATION OF HANDICAPPED CHILDREN						
A. Individual Educational Planning						
1. Educational programming						
a. Laws relating to special education						
b. Laws relating to early education						
c. The local School System						

	YES/YES	YES/NO	NO/YES	NO/NO	COMMENTS
d. School programs available for your child now and in the future					
e. The Individualized Educational Program(IEP) written for your child					
f. The program your child is attending					
g. Classroom procedures					
h. Health and Sex education					
i. Releases and consent forms					
j. First aid procedures					
k. Relationships among child/ family/school staff					
l. Attending parent group meetings					
m. Reports from your child's teachers, therapists, etc.					
n. _____					
_____					
B. The Classroom/Teaching					
1. Structure					
a. Classroom set-up					
b. Daily schedule					
c. Breakfasts/lunches					
d. Discipline					
e. Visitors and volunteers					
2. Instructional areas					
a. Gross Motor (P.E.)					
b. Fine Motor					
c. Self-help skills					
1) Eating					
2) Dressing					

	YES/YES	YES/NO	NO/YES	NO/NO	COMMENTS
3) Toileting					
4) Washing/grooming					
d. Receptive Language (understanding)					
e. Expressive Language (communication)					
f. Social skills (interacting ć others)					
g. Academic skills (reading, writing, numbers, money, time)					
h. Daily living skills (recreation, domestic, vocational)					
3. Teaching Techniques					
a. 1:1; small and large groups					
b. Methods for teaching a skill					
c. Skill sequences					
d. Skill generalization					
e. Keeping data					
f. Reinforcement (effective use of)					
III. PARENTS AS TEACHERS					
A. Support (our staff may help you resolve issues)					
1. How does handicapped child fit in/ relate to rest of family					
2. How do I feel about my child and his handicap					
3. What happens to the child in future					
a. Schooling					
b. Adulthood					
4. How others react to handicapped child and what to do					
5. How will/does/has my life changed					
6. Love, care, teaching, discipline					
7. Dependence vs. independence					

	YES/ YES	YES/ NO	NO/ YES	NO/ NO	COMMENTS
Teaching Skills					
1. Planning - materials, time, place					
2. Methods - making it fun					
3. Collecting data					
4. Behavior management (reinforcement)					
5. Maintaining skills					
6. Unique learning opportunities					
IV. PARENT PARTICIPATION					
A. General Program Involvement					
Would you be willing to:					
1. Provide transportation for other parents to school, events, etc.					
2. Provide your home for parent meetings					
3. Provide respite care for other parents					
4. Be Advisory Council member					
5. Work with local chapters of national organizations					
6. Speak to groups (parents, professionals)					
7. Influence legislative bodies					
a. Write letters					
b. Telephone					
c. Attend hearings					
8. Help others with advocacy					
B. Classroom Volunteer					
1. Visit the classroom once/month					
2. Provide snack for ± 20 students once/month					
3. Supervise small group art activities or free play					
4. Practice with children the skills they are learning					
5. Prepare materials for instruction					

	YES/ YES	YES/ NO	NO/ YES	NO/ NO	COMMENTS
C. Parent Group Meetings					
1. Transport selves to evening meeting					
2. Transport other parents to evening meeting					
3. Need babysitting for evening meeting					
4. Transport selves to daytime meeting					
5. Transport other parents to daytime meeting					
6. Need babysitting for daytime meeting					
7. Most convenient days and times to attend parent group meetings are:					
8. Meeting activities					
a. Guest speakers					
b. Role play					
c. Problem solving & discussion					
d. Films other AV materials					
e. Group training and practice in child management and instruction					

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
TIMES:						

ADDITIONAL COMMENTS:

_____

_____

_____

_____

Thank you.

Appendix F

The West Virginia System

Project C.H.A.R.T.

Parent/Family Involvement Index
(Revised 1/82)

To the Teacher/Aide:

The purpose of this index is to assess the degree to which parents participate in the educational process of their handicapped child. By using it educators can discover the type of involvement parents have in their specific program. They can also assess whether parents are involved as much as they would like for them to be. It is designed to be completed by a teacher and/or aide after s/he has had sufficient contact with the parent(s) to be able to judge the extent of their involvement with their child's education (at least 6 months). The teacher/aide can use case notes, records, and personal experience with the parent in responding to the items included in the index.

The form provides opportunities to reflect the involvement of both father and mother, or either in the case of single parent homes. There are four possible responses to the items on the index: Yes, the item is true of the parent; No, the item is not true of the parent; N.A. (not applicable), the item does not apply to this parent or school situation, and D.K. (the informant doesn't know whether the item is true for the parent). When responding for single parent homes merely leave the spaces for the absent parent blank.

An example of an item would be:

		Yes	No	NA	DK
(a)	Parent has met teacher or aide at least once.	M X	___	___	___
		F ___	X	___	___

In this case the mother had met the teacher or the aide and the father had not.

Identifying and Demographic Information

Please provide the following information concerning the parent(s) and your program. If you do not know or have access to the information for some of the questions, please indicate by marking INA (information not available) by those items. This information is extremely important in helping us to standardize the Index. Please note that we do not want to know the parent's name nor yours.

Parent/Family Involvement Index (cont.)

INITIALS OF FAMILY ABOUT WHOM FORM IS BEING COMPLETED: _____

1. Identifying number of person completing this form: _____
(Please use the last 4 digits of your social security number)

2. Date: _____ 3. School District/Agency: _____

4. Is this a single-parent home? _____ 5. Does parent have phone? _____

6. Does parent have transportation to and from program? _____

7. Age of Mother: 15-20 yrs.___; 21-25 yrs.___, 26-30 yrs.___, 31-35 yrs.___, 36-40 yrs.___, Over 41 yrs.___

8. Age of Father: 15-20 yrs.___, 21-25 yrs.___ 26-30 yrs.___, 31-35 yrs.___, 36-40 yrs.___, Over 41 yrs.___

9. Approximate annual income of parent/family: $0,000-5,000___, 5,001-10,000___, 10,001-15,000___, 15,001-20,000___, 20,001-25,000___, Over 25,000___.

10. Years of education completed by mother: less than 8 years___, 8-12 years___, 12 years___, less than 2 years of college___, 2-4 years of college___, college degree___, master's degree___, doctoral degree___.

11. Years of education completed by father: less than 8 years___, 8-12 years---, 12 years___, less than 2 years of college___, 2-4 years of college___, college degree___, master's degree___, doctoral degree___.

12. Mother's occupation: _____

13. Father's occupation: _____

14. Type of program child is in: (Please check one)

___Educable MR	___Emotionally disturbed	___Hearing impaired
___Trainable MR	___Learning disabled	___Physically handicapped
___Severe/Profound MR	___Visually impaired	___Multihandicapped
___Non-categorical	___Vocational	___Headstart

15. Grade level of program: ___preschool, ___elementary, ___middle or Jr. High, ___high school.

16. Nature of program: (Please check one)

___Resource room	___Partially mainstreamed
___Self-contained	___Assistance to child in regular classes only

17. Child's age (when enrolled in your class): _____

18. How long has child been enrolled (or was enrolled) in your class? _____
(Time in months)

19. Length of time child spends in special education per day or per week:
(Please indicate to nearest quarter hour, e.g., 4 3/4 hrs.) _____

20. Total number of years child has been in special education: _____

Parent/Family Involvement Index

		Yes	No	NA	DK
1.	Contact with Teacher				
	(a) Parent has met teacher or teacher's aide at least once.	M			
		F			
	(b) Parent has spoken to teacher or teacher's aide at least once concerning child's education.	M			
		F			
	(c) Parent calls teacher once a month or more concerning child.	M			
		F			
	(d) Parent has attended an individually scheduled meeting with the teacher at least once.	M			
		F			
	(e) Parent has attended an individually scheduled meeting with the teacher several times during the child's enrollment in the class.	M			
		F			
	(f) Parent at least occasionally sends note to class concerning child (e.g., medication, diet, clothing, transportation, behavior at home, etc.)	M			
		F			
2.	Participation in Special Education Process	Yes	No	NA	DK
	(a) Parent completed screening/assessment device concerning child upon request by teacher.	M			
		F			
	(b) Parent has attended an IEP (Individualized Education Program) conference in the school setting.	M			
		F			
	(c) Parent participated actively in the IEP meeting (i.e., asked questions, made numerous comments, etc.)	M			
		F			
	(d) If necessary, parent allowed IEP meeting to be held in home.	M			
		F			
	(e) Parent has completed needs assessment, program evaluation, parent satisfaction rating or other such forms.	M			
		F			

Parent/Family Involvement Index (cont.)

3. Transportation: Even when there is bus transportation provided by the school district there are still times (e.g., bus not running, child missed bus, special events) when parents need to transport their child to school. The following items deal with those occasions when it is necessary for parents to provide transportation.

		Yes	No	NA	DK
(a) Parent has transported child from home to bus stop.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has transported child from home to school.	M	___	___	___	___
	F	___	___	___	___
(c) Parent has transported additional children besides own to school.	M	___	___	___	___
	F	___	___	___	___
(d) Parent has transported child on special occasions (e.g., field trips).	M	___	___	___	___
	F	___	___	___	___

4. Observations at School		Yes	No	NA	DK
(a) Parent has observed child in classroom activity at least once.	M	___	___	___	___
	F	___	___	___	___
(b) Parent regularly takes time to observe child in classroom activities (at least once per month).	M	___	___	___	___
	F	___	___	___	___
(c) Parent has taken notes or data on child's behavior in classroom activities.	M	___	___	___	___
	F	___	___	___	___
(d) Parent has made suggestions to teacher or aide based on observations made in the classroom.	M	___	___	___	___
	F	___	___	___	___

5. Educational Activities at Home		Yes	No	NA	DK
(a) Parent has allowed teacher, teacher's aide, or school social worker to visit home on at least one occasion.	M	___	___	___	
	F	___	___	___	___
(b) Parent has told teacher or aide about having read things about teaching techniques, educational activities, or about the child's disability.	M	___	___	___	___
	F	___	___	___	___

Parent/Family Involvement Index (cont.)

5. (cont.)		Yes	No	NA	DK
(c) Parent collects data on child behavior at home for the teacher.	M	___	___	___	___
	F	___	___	___	___
(d) Parent performs informal home activities specifically designed to reinforce and maintain skills learned in school or suggested by the teacher.	M	___	___	___	___
	F	___	___	___	___
(e) Parent performs more formal activities designed to train new behaviors, as suggested by the teacher.	M	___	___	___	___
	F	___	___	___	___
(f) Parent routinely sends teacher written information (notes, data, etc.) about child's behavior at home when asked.	M	___	___	___	___
	F	___	___	___	___

6. Attending Parent Education/Consultation Meetings		Yes	No	NA	DK
(a) Parent has attended at least one parent group meeting designed for training educational techniques, child care, or behavior management skills.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has attended such parent group meetings several times (three or more times in school year).	M	___	___	___	___
	F	___	___	___	___
(c) Parent has attended individual training sessions provided by school or school adjunctive services (teacher, school psychologist, school counselor, mental health worker, clinical psychologist).	M	___	___	___	___
	F	___	___	___	___
(d) Parent has attended individual or family counseling sessions conducted by a psychologist, psychiatrist or other mental health professional to assist in adjusting to the child's handicap.	M	___	___	___	___
	F	___	___	___	___
(e) Parent has sought and attended educational sessions outside of school programs (e.g., workshops at conventions, etc.).	M	___	___	___	___
	F	___	___	___	___

Parent/Family Involvement Index (cont.)

7. Classroom Assisting and Volunteering		Yes	No	NA	DK
(a) Parent has volunteered to provide services to the school, outside of the classroom (nurse's aide, office help, school yard maintenance, crossing guard).	M	___	___	___	___
	F	___	___	___	___
(b) Parent has volunteered to serve as chaperone or assistant on a field trip or other organized activity conducted off the school grounds.	M	___	___	___	___
	F	___	___	___	___
(c) Parent has volunteered at least once to assist in the classroom.	M	___	___	___	___
	F	___	___	___	___
(d) Parent has actually worked in the classroom assisting with non-teaching activities such as preparing snacks and materials.	M	___	___	___	___
	F	___	___	___	___
(e) Parent has conducted educational activities with children in group settings (reading stories, singing songs, imitation exercises).	M	___	___	___	___
	F	___	___	___	___
(f) Parent has conducted one-to-one training sessions with child under supervision of teacher/aide.	M	___	___	___	___
	F	___	___	___	___

8. Parent-Parent Contact and Support		Yes	No	NA	DK
(a) Parent has called, or spoken to in person, other parents concerning classroom related issues.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has called, or spoken to in person, other parents about methods of training their handicapped child at home.	M	___	___	___	___
	F	___	___	___	___
(c) Parent has helped other parents become involved in educational activities (e.g., supplied transportation, called to support their activities related to the classroom, etc.	M	___	___	___	___
	F	___	___	___	___
(d) Parent has worked individually with other parents to teach educational or behavior management skills.	M	___	___	___	___
	F	___	___	___	___

Parent/Family Involvement Index (cont.)

8. (cont.)		Yes	No	NA	DK
(e) Parent has baby-sat for another handicapped child and/or has been, part of a baby-sitting or respite service for parents of handicapped children.	M	___	___	___	___
	F	___	___	___	___
(f) Parent has attended parent groups organized for and by parents (not advocacy groups).	M	___	___	___	___
	F	___	___	___	___
(g) Parent has organized activities and/or groups for parents.	M	___	___	___	___
	F	___	___	___	___
9. Involvement with Administration		Yes	No	NA	DK
(a) Parent has sought information concerning the administration or policy making procedures of the classroom or school.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has participated in group meeting concerned with administrative or policy procedures of school (e.g., advisory board of school).	M	___	___	___	___
	F	___	___	___	___
(c) Parent has assumed responsibilities in such group meetings (chairing meetings, writing newsletter, etc.).	M	___	___	___	___
	F	___	___	___	___
(d) Parent serves on advisory board of school or program.	M	___	___	___	___
	F	___	___	___	___
10. Involvement in Fund Raising Activities		Yes	No	NA	DK
(a) Parent has suggested fund raising activities which could be conducted.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has participated in fund raising activities by donating materials, supplies, or money.	M	___	___	___	___
	F	___	___	___	___
(c) Parent has been involved in the actual organization and/or carrying out of fund raising activities.	M	___	___	___	___
	F	___	___	___	___

Parent/Family Involvement Index (cont.)

10. (cont.)		Yes	No	NA	DK
(d) Parent has written letters to potential funding agencies requesting financial assistance for program.	M	___	___	___	___
	F	___	___	___	___
(e) Parent has participated in meetings with funding agencies to request funds.	M	___	___	___	___
	F	___	___	___	___

11. Involvement in Advocacy Groups		Yes	No	NA	DK
(a) Parent has actively sought information about advocacy groups (e.g., ARC, ACLD, CEC, etc.).	M	___	___	___	___
	F	___	___	___	___
(b) Parent actually belongs to at least one advocacy group.	M	___	___	___	___
	F	___	___	___	___
(c) Parent regularly attends the group's meetings.	M	___	___	___	___
	F	___	___	___	___
(d) Parent has been officer or chairperson of committee in advocacy group.	M	___	___	___	___
	F	___	___	___	___
(e) Parent has recruited others to join advocacy groups.	M	___	___	___	___
	F	___	___	___	___

12. Disseminating Information		Yes	No	NA	DK
(a) Parent has referred other parent(s) to programs serving special children.	M	___	___	___	___
	F	___	___	___	___
(b) Parent has written letters (to legislators, newspaper, etc.) to support special education programs.	M	___	___	___	___
	F	___	___	___	___
(c) Parent has spoken to advocacy groups on topics relating to special education.	M	___	___	___	___
	F	___	___	___	___

Parent/Family Involvement Index (cont.)

12. (cont.)		Yes	No	NA	DK
(d) Parent has spoken to local, state, or national groups on topics concerning education (example, spoken to local, Rotary, church group, etc.).	M	___	___	___	___
	F	___	___	___	___
(e) Parent has written articles for newsletters, newspaper, magazines, etc. concerning special education.	M	___	___	___	___
	F	___	___	___	___
(f) Parent has appeared on television or radio to speak about programs for special children.	M	___	___	___	___
	F	___	___	___	___

13. Overall, I would consider this parent's involvement in our program as: (Place an X on one number for each parent)

	1	2	3	4	5	6
Mother	___	___	___	___	___	___
Father	___	___	___	___	___	___
	Not at all involved					Extremely Involved

Appendix G

The West Virginia System

Project C.H.A.R.T.

A Four-Level Model of Parents' Involvement in their Child's Special Education Program

Elizabeth S. Shamblin and John D. Cone

I. Introduction
   - A. The Four Levels
   - B. Assessing Who Your Parents Are
     1. Assessment and Scanning form
     2. Family Needs Assessment form
     3. Parent/Family Involvement Index
   - C. A Checklist for Organizing Teacher-Parent Contacts

II. Level I: Parents as Passive Recipients of Information
   - A. Goals of Communication at Level I
   - B. Modes of Communication at Level I

III. Level II: Parents as Active Pursuers of Information
   - A. Types of Information Sought at Level II
   - B. The Home Enrichment Program

IV. Level III: Parents as Supervised Users of Information
   - A. Facilitating Parents' Requiring Their Child to Use Skills Learned at School
   - B. Parents as Volunteers in the Classroom

V. Level IV: Parents as Independent Users of Information

A. Types of "Independence"

B. Parents as Teachers at Home

1. Training parents in direct instructional procedures

2. Using data sheets for home-school communications

VI. Evaluating the Model

A. Parent Meeting Evaluation Form

B. Parent Satisfaction Rating Form

C. Parent/Family Involvement Index

Appendix H

The West Virginia System
Project C.H.A.R.T.
Slide Tape Show Narrative

Project C.H.A.R.T. -- the initials stand for Children with Handicaps in Accountable, Rural Teaching -- is a model demonstration program for young children who are severely developmentally delayed.

Officially titled "A Model Public School Data-Based Early Education Program for Rural Handicapped Children", Project C.H.A.R.T. is co-sponsored by a grant from the United States Department of Education, Office of Special Education Programs, Handicapped Children's Early Education Program and the Preston County, West Virginia schools.

Project C.H.A.R.T. is administered by the University Affiliated Center for Developmental Disabilities at West Virginia University.

The program enrolls children between 36 and 72 months - 3 to 6 years-of age who live in Preston County and have severe developmental delays. In existence since September, 1979, Project C.H.A.R.T. has served children with a variety of handicapping conditions, such as mental retardation, visual and hearing impairments, speech and language deficits, orthopedic impairments including spina bifida and cerebral palsy, and aggressive and disruptive behavior.

The Project's classroom is located in the Early Childhood Center in Kingwood, West Virginia about 25 miles southeast of West Virginia University.

The center is a large open building with 2 early childhood classes separated by partitions and a 3rd area used by the Project C.H.A.R.T. class. Another early childhood class is housed in a trailer next door. Students attend class four full days a week, Mondays through Thursdays, Fridays are used for home visits.

One-to-one and small group instruction of the Project C.H.A.R.T. students occur in various locations within the open classroom. The general openness facilitates observation of and interaction with the non-handicapped early childhood students. The opportunity for observation and interaction among the children in the integrated classroom setting is a crucial component of the program. Handicapped students in Project C.H.A.R.T. participate with the other children in such things as music class, free play, special events, art activities, lunch, and snack time.

Project C.H.A.R.T. thus gives young handicapped and non-handicapped children the chance to become acquainted, an opportunity often not available to these groups.

The underlying basis of Project C.H.A.R.T.'s educational program is the West Virginia System, a comprehensive approach to assessing a student's skills and matching teaching and parent involvement activities to his or her needs.

The principal way of assessing the children

is with the West Virginia Assessment and Tracking System, known as the WVAATS.

The WVAATS measures adaptive behavior in 20 different areas such as: tactile, auditory and visual responsiveness, gross motor, dressing, social interaction, expressive and receptive language, writing, time, vocational, and money.

Information from the WVAATS and other forms of evaluation can be used by a student's parents and professionals working with the student to develop an Individual Education Plan, or IEP. An IEP which is required by public law for all handicapped children served in schools, specifies long-term educational goals for the student and the instructional steps which will be needed to attain those goals.

When a child has been assessed and the IEP specifies placement in Project C.H.A.R.T., the curriculum of The West Virginia System is used to begin instruction. The West Virginia System curriculum is keyed to the WVAATS, so the curriculum can easily be matched to priority training areas identified during assessment.

The West Virginia System curriculum involves step-by-step instructions written on over 6,000 method cards. Major skill areas such as fine motor, toileting, and expressive language are broken down into sub-areas which in turn are

task-analyzed, or broken into very small steps. A child can master the skills included in any area by progressing through these steps.

The step-by-step instructions of the WVS Method Cards follow a minimal-to-maximal prompting sequence to teach one particular skill. The first step is used to assess whether the student already has this skill in his/her repertoire and will perform it when asked. If not, the remaining 3-5 steps describe how to train the skill, usually by adding, more and more assistance. Each step tells the trainer what to do, dependent upon the student's response.

In order to tell whether instruction is effective, it is important to monitor the day-to-day progress each student makes on specific objectives. This is accomplished in the WVS through the use of the Universal Data Sheet, which allows a teacher to both record and graph a student's achievements at the same time.

A short summary of the objective a student is working on is written in the space to the left.

Then, during a student's daily instruction on the objective, the teacher simply records each correct response, starting at the bottom of the column, and each incorrect response starting at the top. A heavy line connecting the last correct trial on each day easily graphs the child's performance over time.

Finally, to help ensure that students use newly-learned skills outside of the classroom, the WVS features a Home Enrichment Program which parents can use to teach their children at home. The HEP contains cards listing fun activities designed to last 5-15 minutes using items typically found in the home. There are cards for every day use, holiday cards and special occasion cards (shopping, vacationing, etc.). Each card is correlated to The West Virginia System curriculum areas and sub-areas.

Now, let's review The West Virginia System and how it is used by Project C.H.A.R.T.

1. WVAATS assessment

   (a) Parent interview

   (b) Teacher as informant

   (c) Direct observation

2. The Individual Educational Program/Total Service Plan

   (a) Developed at Placement Advisory Council meeting - parents, administrators, school psychologist

   (b) Written according to The West Virginia System guidelines

(c) Planning monthly goals on the Implementation/ Instructional Plan

3. Implementing the curriculum

(a) Method Cards

(b) Direct Instruction

(c) Universal Data Sheets

4. The Parent Involvement Model

(a) Home Enrichment Program

(b) The C.H.A.R.T. Newsletter

(c) Home visits on Fridays

(d) Parents as volunteers

(e) Parents as trainers

(f) Parent meetings

Appendix I

Thursday August 27, 1981—Kingwood, W.Va.—PRESTON COUNTY JOURNAL—11

Early intervention program concludes

Project C.H.A.R.T. (Children with Handicaps in Accountable, Rural Teaching), which operates a class for handicapped children 3-6 years old in Preston County, has just completed the 1980-81 school year. The project is co-sponsored by a grant from the U.S. Department of Education, Office of Special Education, Handicapped Children's Early Education Program and the Preston County schools.

Six children were served during the regular school year. Betsy Shamblin was the classroom teacher. Teresa Harsh served as the assistant. The class was held in the Early Childhood Education Center, with Sharon Malone's and Suzzanne Chapman's (kindergarten) classes. The handicapped and non-handicapped children were integrated for many activities, especially music, art, lunch, story time and special events. In addition, some handicapped children were integrated for language arts activities and some non-handicapped children received extra help in fine motor and other skills.

A summer session was held at the P.C.E.C. Child Care Center from June 22-July 20. The program served 16 children - 6 handicapped (3-7 years) and 10 non-handicapped (5 and 6 years). The non-handicapped children were recommended by their teachers as those who would benefit the most from additional class experiences prior to first grade.

The handicapped children continued to receive instruction in the same areas as during the school year. For the non-handicapped children, instruction centered primarily on listening, pre-reading and writing activities.

Waneila Halbritter and Don Schultz of the Preston County Schools worked out the cost and transportation details for the summer program. Three students from West Virginia University assisted daily. A CETA Governor's Summer Youth Program worker also served as a classroom assistant.

The C.H.A.R.T. Program is free to eligible children. If you know of a child in Preston County, 3-5 years old, who may be eligible for the program, call Waneila Halbritter at 329-0580 or Marilyn Frank at 293-3303.

The Preston County Journal, May 23, 1982

Future of Project C.H.A.R.T. uncertain

The future of Project C.H.A.R.T. in Preston County is uncertain. Project C.H.A.R.T. --the initials stand for Children with Handicaps in Accountable, Rural Teaching--is a model demonstration project for three to five year old handicapped children. The uncertainty of its future results from the fact that the project's federal funding will end with the current school year.

"In the current political climate, early intervention programs for young handicapped children face an uncertain future," says Marilyn Frank, coordinator of Project C.H.A.R.T. Because federal funds have been cut, efforts are now underway by the Project's advisory council, concerned parents and others, to find alternative funding sources so the integrated classroom serving Preston County's young handicapped (and some non--handicapped) children may continue, she adds.

But what exactly is the program? How does it work? And why do its proponents believe it should be saved?

Project C.H.A.R.T. is located in a classroom in Kingwood. Funds for the project have been provided by the U. S. Department of Education, Special Education programs, Handicapped Children's Early Education Program and the Preston County and West Virginia school systems. The program is in its third year of operation.

During the first year, the class was located in a trailer at the Preston

(Continued on Page 6)

(Continued from Page 1)

County Educational Center. Students went to the Early Childhood Education Center for music, lunch and playtime activities with those students.

A tornado in April, 1980 damaged several school buildings in the county, including the Manown building that housed some special education classes. This meant those classes had to be moved. During the move it was decided to put the C.H.A.R.T. class into the Early Childhood Center beginning in the fall of 1980. This decision allowed the young handicapped students to be involved in many more activities with the five year old early childhood students. During the 1980-81 school year the handicapped students were also integrated for art, story time and special activities. Some non-handicapped students, recommended by their teachers, also received extra instruction in fine motor and language skills from the staff of the C.H.A.R.T. program.

This year even more integration is taking place. Two of the handicapped students participate in morning academic lessons, each with one of two early childhood teachers. Additionally, 10 non-handicapped students are receiving instruction in areas where they are slightly behind the other students or can benefit from the extra work.

The students in Project C.H.A.R.T. receive structured, daily instruction using materials developed by the West Virginia System. Most lessons have one teacher for each student or small groups where a teacher works with two to four children. The teacher, Elizabeth Shamblin, and two assistants, Teresa Opel and Jackie Bucklew, have received training in the use of the West Virginia System curriculum materials and specific ways to teach skills. Data are kept in every area where students receive instruction in order to monitor progress closely.

Organizing and running three classrooms in one open building is not an easy task. Add to this many and ever-changing schedule adjustments so students can be integrated into activities or receive special instruction at appropriate times and chaos could result. But, according to Ms. Frank, teachers Suzzanne Chapman, Sharon Malone and Mildred Lindley and their three assistants have all worked closely with Ms. Shamblin and her assistants to create an organized, smoothly operating class system. Whenever time permits, they get together to discuss problems and possible solutions and to handle the every day adjustments. They plan and implement consistent approaches to reinforcement and discipline. This is important when six or more adults are involved with up to 50 children at one time, they all believe.

Both the early childhood classes and the Project C.H.A.R.T. class utilize parent volunteers. They assist with art activities, help students with drill work (learning the alphabet, numbers, etc.), assist with snacks and special activities. Project C.H.A.R.T. parents are also learning how to do instructional lessons with other students and with their own child. The staff recognize and value the help and cooperation of all these parents, Ms. Frank says.

"Recent research is showing, repeatedly, that early childhood special education is most beneficial," Ms. Frank says. "Early Education results in significant developmental gains for children served. It also has a positive impact on the parents and families of children served (both on attitudes about handicaps and skills they expect their child to learn.) Early Education is cost efficient, since lifetime improvements in the children result in less dependency on costly special education and other human services. Many children (across the county) are placed full or part time in regular education classes, sometimes with resource instruction or an aide in the classroom."

It is for these reasons those association with the program are fighting for its survival.

DOMINIC

SUNDAY, APRIL 25, 1982

'Integrated' kindergarten benefits

By SANDI METHENEY
Dominion Post Staff

Andrea was four years old when she was enrolled in Project C.H.A.R.T. (Children with Handicaps in Accountable, Rural Teaching).

She had behavioral problems, she had very little speech, and she lacked "environmental stimulation." County educators had tried placing her in a kindergarten near her home, but it was "impossible to control her there," according to her C.H.A.R.T. teacher, Betsy Shamblin.

Now, she says, "Andrea can sit in a lesson with other children and listen to the teacher and other students without demanding to be the center of attention. She can sit in the center of a group quietly without grabbing someone else's paper, or pinching, or pushing or kicking somebody." Also, by being active participants in the program, her family has learned how to provide her more "environmental stimulation" at home.

C.H.A.R.T., a model demonstration project for pre-school handicapped children, is "integrated" into an Early Childhood Center in a converted barn at the Preston County Educational Center.

Without the benefit of Andrea's experiences in the C.H.A.R.T. classroom, Ms. Shamblin surmises that if Andrea were "just being discovered in Early Childhood Education, she would still be at the level she was three years ago."

Children who are getting no services at the pre-school level, such as Easter Seals provides, are "not likely to advance much" between infancy and their school years, she explains.

It has become the prevailing thought of therapists and others that "if you start with them young, you can minimize their handicapping conditions," Ms. Shamblin states.

The C.H.A.R.T. Project in Preston County has seven students enrolled, and much of their instruction is on a one-to-one basis with the teacher or with her two aides. They also are "integrated" into classes with "regular" students, with whom they share classroom space.

The regular students, who need special instruction, receive it from Ms. Shamblin, who is a special education teacher, so that the presence of the project in the classroom is beneficial to everyone there. "Some of our children go to other teachers for lessons, and some of their students come to us for lessons," Ms. Shamblin notes.

The difference between "integrating" students and "mainstreaming" them, she explains, is that with "mainstreaming," handicapped students spend the majority of their time in regular classrooms. With "integrating," most of the education is provided by special education services, but the students have "points of contact with other students."

During the first year of C.H.A.R.T., in 1979, the class was held in a trailer, and the students joined the PCEC class for lunch, music and playground. "During the second year, they decided they wanted to integrate the kids, and to have the special education teacher providing services to the kindergarten kids that needed help. They also wanted to have the handicapped kids exposed to kids without handicaps. If they see kids their own age doing something, there is a greater possibility they will attempt to emulate them," states Ms. Shamblin.

Andrea's day in school begins when she arrives on a special education bus. Until recently, she needed constant individual attention, and could not join in group activities. Now, she is able to join the music circle and playground activities. Like the other students, she has several 15-minute teaching sessions with a teacher who has one-four students at a table throughout the morning. They work on fine motor skills, gross motor skills, language and other skills. These are formal lessons in which they learn to fold paper, roll clay, dress, groom themselves, and express and receive communications, explains Ms. Shamblin. All through the day, informal instruction is given to help the children "learn to do things in a normal manner — like hang up coats, sit quietly to use materials, and to use toys as they were intended to be used." These are the things that will help them "fit in" with other students, she says.

Materials for instruction were developed by the West Virginia System, and data is kept in every area where students receive instruction so that their progress is closely monitored.

s handicapped, regular students

Photo By Ron Rittenhouse

SPECIAL EDUCATION TEACHER Betsy Shamblin teaches C.H.A.R.T. student Kathy Jo Phillips dressing skills. Kathy is one of seven students enrolled in the model program for pre-school handicapped students in Preston County.

In addition to the classroom instruction, the children receive guidance at home from their parents, who are trained by the teachers. "We have a home based program. Parents come in once a month as volunteers to work in the classroom. We make home visits once a month to discuss the student's progress, mutual concerns, how to do therapy, and how we can deal with a child's behavior in a consistent manner. We also suggest informal activities for parents to do with the children. These activities are selected individually for each child so that they are appropriate for his level of development."

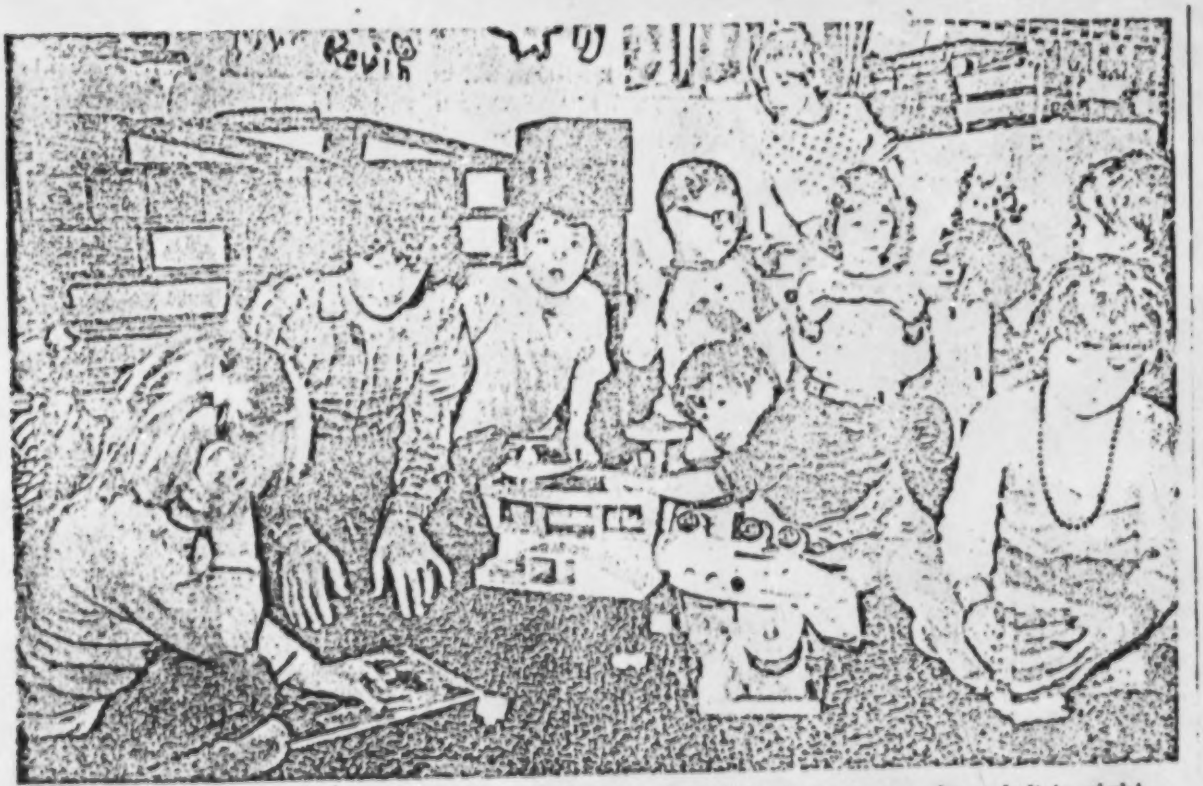
She says "most parents are real interested. When they are here they do informal activities with the children, and help us make materials. They may learn to teach lessons by observing us. We now have three parents teaching at home -- 15-minute formal teaching sessions, four days a week."

A federal grant to help establish teaching curriculum and set up programs for early childhood education for handicapped children was the basis for C.H.A.R.T. "The money was an incentive to get programs going, and this was to be a model for others in the country," explains Ms. Shamblin.

John Cone of the West Virginia University Affiliated Center for Developmental Disabilities is project director who applied for the grant, and Marilyn Frank is coordinator of Project C.H.A.R.T.

The Preston County Board of Education also contributes to the support of the program.

Because of the current political climate, C.H.A.R.T., like other early intervention programs for young handicapped children, faces an uncertain future, according to Ms. Frank. The federal funding will end with the current school year. Efforts are under way by the Project's Advisory Council, concerned parents, and others, to find alternate funding sources so the class can continue.



PRE-SCHOOL handicapped children and regular kindergarteners have combined activities in the 'integrated' classroom where Project C.H.A.R.T. is held. Above, the children receive guidance from classroom assistant Jackie Bucklew. The C.H.A.R.T. students are, from left to right, Dee Watkins, April Sisler, John Lucas, Brandon Cool, Matt Nestor and Michael Poling. Early Childhood Education students are Jamie Livengood, Samatha Barlow and Jarred Jackson.

Appendix J

The West Virginia System
Project C.H.A.R.T.
Controlled Evaluation of Instruction Methods

John D. Cone

Introduction

Programs supported by the Handicapped Childrens Early Education Program (HCEEP) of the Division of Special Education and Rehabilitative Services (SERS), Department of Education are eligible to apply for funding through three years of demonstration and through additional years (up to three) of dissemination and technical assistance provision (outreach). In order to qualify for consideration for funding for outreach activities, demonstration projects must submit evidence of their effectiveness to SERS, and to the Joint Dissemination Review Panel (JDRP) of the Department of Education. The JDRP standards for evaluating a program's effectiveness are very thorough and exacting. Because of this only a small percentage of HCEEP demonstration projects ever apply for JDRP approval.

Project C.H.A.R.T., now in its second year, plans to submit evidence of its effectiveness to the JDRP in order to be in the most favorable position to compete for the limited funds available for outreach activities. In order to submit a grant application for outreach support to begin at the end of its normal three year demonstration cycle, it is necessary for data as to its effectiveness to be collected during the second (current) year.

Such a schedule allows JDRP approval to be pursued in time for an outreach grant proposal to be considered during the third project year for funding to start at the end of that year.

Consequently, strenuous efforts will be made during the present year (2d) to evaluate Project C.H.A.R.T. Data will be collected to answer the following questions concerning the instructional procedures used:

(1) Do changes occur in the children served?

(2) Are these changes educationally/socially meaningful?

(3) Can the changes be unambiguously attributed to the instructional procedures used in the project?

(4) Can the effects be replicated in other programs?

(5) What is the cost per pupil of implementing the model?

Evaluation Design: Changes in Specific Objectives

Most evaluations of educational programs are based on designs involving comparisons between groups of children. The classic two-group true experiment (experimental vs. control groups) is the common referent for this general design strategy. Practically all JDRP submissions have been based on between groups (inter-subject) designs. Because of the practical and ethical difficulties in developing experimental and control groups when working with handicapped children, however, the Project C.H.A.R.T. submission will be based on a within or intra-subject design. It will not rely on differences between treated and untreated children for evidence of its effectiveness. Rather, it will rely on differences in the mastery of objectives by students during

times they are receiving instruction and times they are not.

Specifically, the Project C.H.A.R.T. evaluation will be a multiple baseline across students and across priority training areas within students. After priority training areas (PTAs; e.g., gross motor, receptive language, etc.) are determined for each child, training will be initiated as usual for all but two of the areas. The areas to receive training will be randomly selected from among the PTAs chosen for each child. Data will be collected on UDSs on every PTA each day, including areas not initially receiving training. Training will be extended sequentially to the first and then the second untrained area as the baseline data for these indicate. Effects of training will be shown by increases in each area only after training is introduced. Thus the design will be a multiple baseline across behaviors within each student.

In addition, training will be introduced to untrained areas at different times for different students. For example, after its baseline has stabilized, the first untrained behavior for Student 1 will be trained. Several days later the first untrained behavior of Student 2 will receive training, then the first of Student 3, etc. The introduction of training at different times across students with baselines unchanging until this happens will help establish that changes are indeed due to training and not some uncontrolled variable. A diagram of the design is represented in Figure 1.

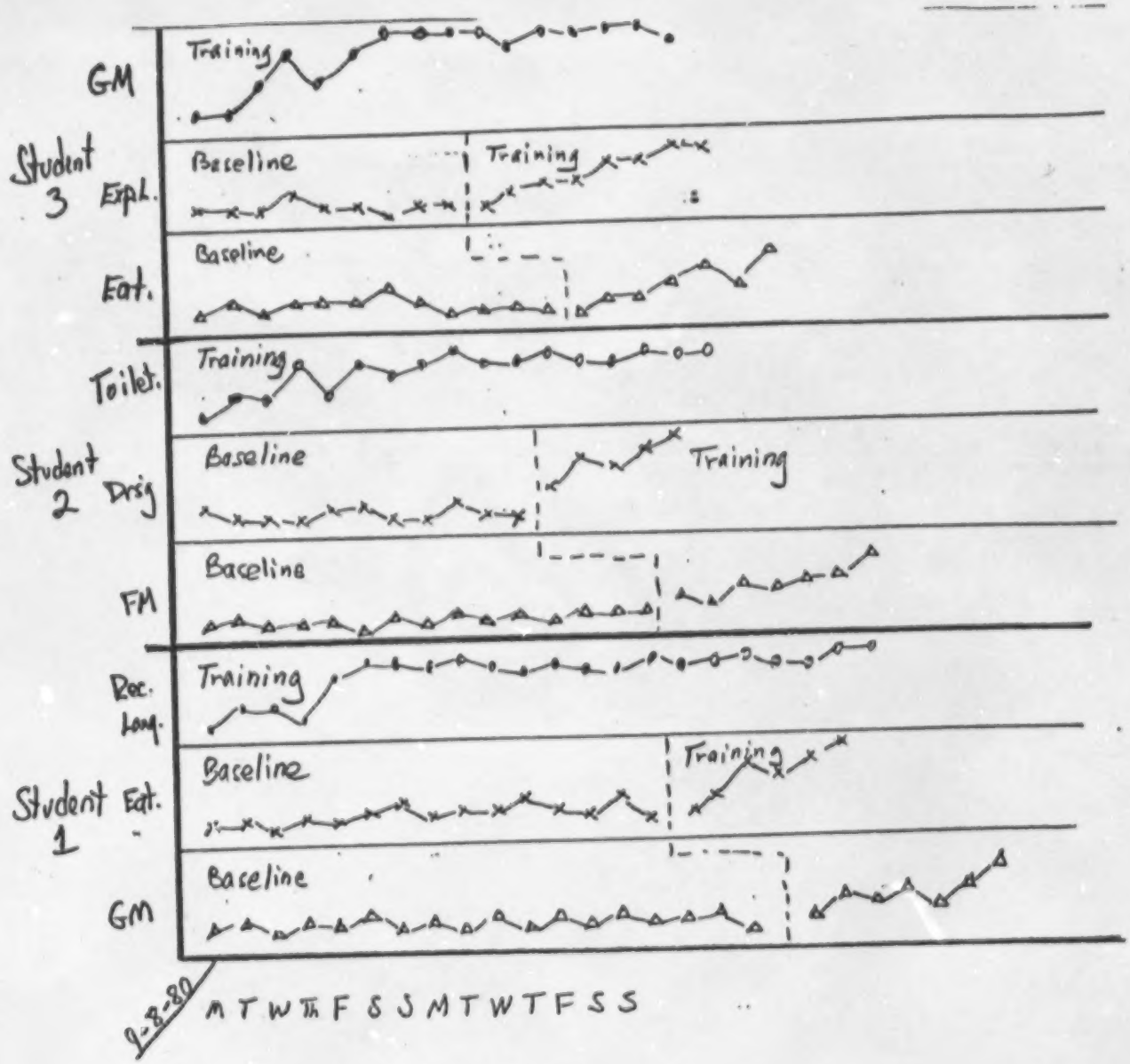

GM
Training
Student 3
Expl.
Baseline
Training
Eat.
Baseline
Toilet.
Training
Student 2
Drsg
Baseline
Training
FM
Baseline
Rec. Lang.
Training
Student 1
Eat.
Baseline
Training
GM
Baseline
1-8-80
M T W Th F S S M T W T F S S

Figure 1

Data Collection

Five test trials will be administered in each area each day. Data will be taken on the objective currently being trained in areas already being trained, and on the first short-term objective in untrained areas. The first short-term objective is the objective right after the student's present level of functioning. Data will be recorded by the teacher or aide working with the child.

Reliability will be assessed on the least 20% of the test trials. An independent observer will mark a separate UDS as the teacher/aide is marking hers. Trial-by-trial agreement will be calculated with agreement being defined as both teacher/aide and observer marking a "+" or both marking a "o". The observer will also record whether the test trial is administered according to the standardized instructions included on each method card.

Phase Change Decisions

Decisions to change phases will be made by the project director in consultation with the coordinator and teacher. These decisions will be based on daily observation of the data as phoned to the coordinator by the teacher. Each day the coordinator will update UDSs posted in the main project office.

Reliability of Independent Variable

Since the purpose of the evaluation is to demonstrate the effectiveness of the instructional strategies embodied in the method cards of The West Virginia System curriculum it will be important to ascertain the consistency with which the teacher/aide employ them. Periodic checks of this consistency will be

conducted by trained observers. These observers will record teaching sequences using the Staff-Pupil Interaction Rating System (SPIRS; Cone, Nyberg, & Watson, 1980). Whenever teaching sequences are below 85% correct for a session the teacher/aide will receive retraining in the use of WVS instructional methods and data for the session will be appropriately noted on the UDS.

Evaluation Design: Overall Level of Function

Systematic change in specific instructional objectives only after training has been introduced will verify the effectiveness of training. However, daily progress on specific objectives is important only as it is related to meaningful change in overall functioning in the areas being trained. It is conceivable that lots of progress could be shown in terms of mastery of very finely sliced instructional pinpoints without showing much overall growth in the larger skill being taught. For this reason it is helpful to have data on measures (e.g., adaptive behavior scales) designed to assess more general changes in the student. It would also be helpful to relate these to the behavior normally expected of children the same chronological age as the student being evaluated.

There are a variety of problems which make it difficult to accomplish meaningful overall assessment in this manner, however. Not the least of these is the absence of suitably standardized instruments for comparing handicapped and non-handicapped children. Nonetheless, data will be collected in order to evaluate our program in this way.

A pre-post comparison of children's scores on the Uniform Performance Assessment System (UPAS; White, Edgar, & Haring, 1978) will be conducted on scores collected at the beginning of the school year and again at the end. These data will be obtained by a graduate student in clinical psychology who will be unaware of the areas in which children have specifically received training. The West Virginia Assessment and Tracking System (WVAATS) will also be administered pre and post but cannot be used as a major dependent variable in evaluating the program since it is a part of the selection assessment battery and scores might change on it merely because of regression artifacts. Suitable checks on the reliability of the UPAS administration and scoring will be performed.

Generalizability of Program Effectiveness

The extent to which effects of The West Virginia System instructional procedures are idiosyncratic to Project C.H.A.R.T. will be assessed by replicating major portions of the model and evaluation design in several self-contained special education classrooms in the Richmond, VA Public Schools.

The replication will not be exact because of some differences in the children and the programs in Richmond. The level of handicap of the Richmond children will be comparable to those of Project C.H.A.R.T. However, the children will be somewhat older (5-7 years vs. 3-5), and they will receive instruction in self-contained classes of eight children, a teacher, and an aide.

Because of the newness of preschool special education in public schools in West Virginia it was not possible to find cooperative replication sites matching ours in all particulars. Richmond administrative and classroom teaching personnel were exceptionally receptive, so the decision was made to include them. An internally valid replication design will be tailored to the special requirements of the Richmond program after an on-site visit and meetings with the staff by the project director.